SOME LATE WORDS ABOUT LOUISIANA.

ISSUED BY

T. W. POOLE,

Commissioner of Immigration of Louisiana.

1891.

CRESCENT STEAM PRINT, 110 Chartres Street, New Orleans, La.

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T. W. POOLE,

Commissioner of Immigration

—OF THE—

STATE OF LOUISIANA.

ADDRESS:

No. 60 ST. CHARLES STREET,

NEW ORLEANS, LA., U. S. A.

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SOME LATE WORDS ABOUT LOUISIANA.

THE Louisiana of to-day is a very different State from Louisiana of four, or even two, years ago, with respect to immigration. Within the former period, an area in her southwestern border, a belt fifty miles long by twenty or more broad, has been utterly transfigured by such a notable immigration from the West, that it is the mostly distinctively Anglo-Saxon migration ever known to the South since the settlement of Jamestown, Virginia, in the early history of our civilization of this continent. The character or quality of this immigration is beyond praise, viewed as a mass. It blends instantly in fraternal coherence with our people in enduring homogenity.

Its people are law-abiding, intelligent, thrifty, industrious, in large proportion well-to-do (in not a few cases wealthy), and thoroughly in accord with the spirit of American liberty. In almost every instance they pay cash for the land they purchase. In cases where the earlier settlers of more moderate means have purchased or taken homesteads, the great increase in value of their holdings has placed them, with few exceptions, in a position of competency; so, that as a body, they constitute such an aggregation of land-owners, free from indebtedness, that no part of the United States furnishes a parallel to.

Then, as a body, there is such a deep and pervading content and hopefulness marking them that, without almost an exception, every one is an enthusiastic, efficient propagandist in behalf of immigration to the State.

All these factors in this bright epoch of Louisiana's progress are only earnests of the incompatable outcome of the development of our State. Only a few years ago was felt the first impress of this progress that has now deeply and durably engraven its fair features upon Louisiana.

It is an enviable distinction and an indestructible self-engraving as well as an enduring beneficence, attaching to the administration of my predecessor, Hon. Wm. H. Harris, this great development of our State. Contemporaneous with his administration has transpired one of her most notable eras. This is a felicity upon which he is to be congratulated; *and fair-minded men will be glad to remember it, as we are to record it.*

And, as coadjutors, it is a duty and a pleasure to accord to others their measure of praise. Mr. S. L. Carey, formerly of Manchester, Iowa, was induced to locate in Calcasieu parish through the importunity of Commissioner Harris. With a patience, sagacity, industry and management truly remarkable, this pioneer set to work to populate the area then unknown to the foot of the Western immigrant. He secured some land; prevailed on his kindred to settle from the West; laid off the town of Jennings, and soon had a nucleus of Western men. And Mr. A. D. McFarlain a native, was a co-worker and joint owner of this town. A little later, Mr. J. B. Watkins secured an immense area—a million and a half acres, or more—and soon laid the foundation of those prodigious and expensive plans of development and immigration *propaganda* which soon afterwards characterized his efforts, and which are still in force.

Early in the year 1886, *The Times-Democrat*, one of the leading papers of the South, a journal of great authority, of New Orleans, La., secured

the services of Col. M. B. Hillyard. This gentleman traveled over much of Southwest Louisiana, and wrote many letters about that area. Jennings, then a little town of a dozen or more houses, received great attention from his pen, and he gave distinct regard to several other localities. His letters were widely republished in the West, and were reproduced in a number of journals in England. These letters contributed much to the development of Southwest Louisiana, as is generally conceded by the people of this State and the country at large. Another work by this gentleman was the publication of a large book, entitled "The New South," issued in 1887. In it Louisiana, as well as other States of the South, had space accorded to their claims upon the immigrant, the capitalist, manufacturer and health seeker. It was distributed, in elegant form, by its publishers, The Manufacturers' Record of Baltimore, Md., to all the leading hotels and libraries and newspapers of the United States, and the leading steamship lines of the world. This stroke of enterprise cost the publishers, we are credibly informed, nearly twenty thousand dollars. And this book is telling the story of Louisiana's attractions throughout the civilized world, and for unnumbered years, will still proclaim them.

Shortly after Col. Hillyard's work in the *The Times-Democrat*, Mr. J. B. Watkins began to print *The American* at Lake Charles, La., and to commence that large and liberal system of development of his lands and advertising them. The whole adjacent country felt the influence of these costly endeavors, and Lake Charles felt, particularly, the work, which is written in a progress of larger character than any town in Southwest Louisiana, or, perhaps, the State. As an assistant in this work, he had Prof. S. A. Knapp, formerly president of the Iowa Agricultural College, who, by tongue and pen and many phases of public action and marked identification with industrial affairs, has, in a brief sojourn in Louisiana, made a reputation here second only to that of the great distinction he achieved in Iowa. The other great assistant of Mr. Watkins was Prof. A. Thomson, formerly of Iowa, and a brother-in-law. This gentleman (a civil engineer) has had the practical oversight and execution of many schemes of Mr. Watkins and his own, and some in connection with Prof. Knapp in their own interest.

Another factor of considerable influence in development in that area has been the Southwest Louisiana Land Company, with Mr. Alphonse Levi as president, and Messrs. C. C. Duson and W. W. Duson as coworkers. Among other striking phases of their work has been the building of Crowley, in which Col. Hillyard gave most notable assistance in the columns of *The Times-Democrat* aforesaid. Another steady and liberal co-worker in the development of Southwest Louisiana has been the Southern Pacific Railroad. The country so greatly developed, of which we have been speaking, is situated on their line. They have devised schemes to foster immigration, having as Northern immigration agent, Mr. S. L. Carey; and, besides, special rates for immigrants, at *all* times, run for the winter and late autumn and early spring, semimonthly excursions in conjunction with the Illinois Central Railroad, at very low rates, with Mr. Carey accompanying them as guide.

So much for Southwest Louisiana.

In North Louisiana and elsewhere, there are several immigration associations at work: The North Louisiana Land and Improvement Company of Union parish; an Immigration Association in Franklin parish; the North Louisiana Immigration Association, headquarters in Caddo parish; an Immigration Association under the Sugar Planters' Association of the parish of Ascension. In this part of the State, North Louisiana, while Western Immigration has made but only an occasional mark,

hardly noticeable, yet immigration from the South, of white people from Georgia, Alabama and other States, is making a considerable stir, and coming in in force. Although the movement is very recent, yet already several hundred families have come in, and these are but the harbingers of those to follow. It is an act of the merest justice to say that this immigration is greatly, if not *wholly*, attributable to Mr. E. C. Drew, of Bienville parish, Louisiana. We see warm tributes to him in the press of that portion of the State, and think the people generally are glad to have their gratitude voiced in such recognition of his services.

Another powerful influence in behalf of immigration is the Illinois Central Railroad. On their southern division, within the limits of Louisiana, in the last two or three years, much development has taken place there. Several towns that, within those years, had no existence, have become quite noted West, and are building rapidly, while others that languished have become bustling. The development in fruit and vegetable raising has been immense, and this railroad now devotes its best efforts to promoting these industries—industries long before prosecuted by energetic pioneers, and which brought them loss or ruin.

In this late work of development on the line of the Illinois Central Railroad, *The Times-Democrat* played some part, having again brought into requisition the pen of Col. M. B. Hillyard, who spent some months in writing up that country in its columns. In connection with this railroad, the signal efforts of Mr. J. F. Merry, the general Western passenger agent of the road, ought to be mentioned. He has put into operation a well-devised and ably sustained scheme of semi-monthly excursions from the West over the line of his road, to promote immigration to Louisiana.

It is right and proper, in this later-day rush of immigration, and fruit and vegetable planting, that pioneers, who worked many years before, should not be forgotten. Fifteen or twenty years ago much work was done in behalf of immigration, and raising fruits and vegetables. Such men as Dr. S. A. Swazey, the Messrs. Menard, S. S. Connor, and others, were early in fruits and vegetables. Col. M. B. Hillyard, then of Hazlehurst, Mississippi, exerted an influence along the whole line in his large work there in the same business; and Mr. Parker Earle, the president of the Mississippi Valley Horticultural Society, lent to the industry the great influence of his example. In immigration, Col. Dan'l Dennett, the veteran agricultural editor of the New Orleans *Picayune*, and Col. M. B. Hillyard, exerted themselves strenuously by addresses along the line of the Illinois Central railroad, as early as 1874-75. And the latter gentleman wrote many letters before and after that time, in various Northern journals, and brought down many eminent journalists from the North and West to assist in the behalf in question. Through him, too, the management of the railroad (since passed into the hands of the Illinois Central), spent much money in advertising, editorial excursions, etc.

Finally, the earlier work of commending Louisiana to the public had great help from a pamphlet from the pen of Col. Daniel Dennett, aforesaid, entitled "Louisiana As It Is." This work was issued about the year 1875, and was chiefly devoted to the "Attakapas" parishes of Southwest Louisiana. It is a noble work, and written *con amore* by one thoroughly conversant with the topic. No greater praise can be accorded it, than to say that the United States government has adopted much of its subject matter in a pamphlet, issued by the United States Department of Agriculture, entitled "The Soils and Products of Southwestern Louisiana." In this pamphlet, Col. Dennett's work is thus alluded to:

"The most accurate information in reference to the location and distances of the towns, rivers, lakes, bayous, and railroads is found in Dennett's description of Southwestern Louisiana." We have had several motives in this rather extended review of Louisiana's progress, and the promoters of it. First, we rejoice to "render honor to whom honor is due;" we delight to keep fresh in public esteem those whom the world quickly forgets, in the nature of human conduct; we also, thereby, while paying these tributes, measurably portray the development of the State, and show its localities. The lesson is thereby conveyed that work finally *counts*, although in some cases the fruits do not at once appear. The lesson of this depiction is that three localities are on the road to a development. That, in Southwest Louisiana, is beyond due estimate; that is very considerable on the line of the Illinois Central railroad, and that promises much in North and Northwest Louisiana. Those railroads have spent money liberally, and have employed competent officers. North Louisiana has not had railroad assistance, but labor has borne its results. The review offers an incentive to *other* railroads to exert themselves in behalf of immigration. Nearly a score of towns have sprung up on the Southern Pacific railroad as one of the results of immigration, and several on the line of the Illinois Central. On the other hand, the teaching is that if a railroad will *not* arise to the height of the opportunity, still private enterprise can effect much, as Mr. E. C. Drew's great success amply illustrates. Therefore, let individuals and associations take hold of this great interest. The lesson is that, with proper management, they cannot labor in vain.

In the following pages the general topics of health (the most important of all considerations) and climate are treated with an authoritativeness and exhaustiveness that makes anything we could say superfluous and a work of supererogation. Unreasonable, indeed, would be that person who could wish anything more satisfactory about health, anything further about climate, than the matter herewith printed.

Briefly, as to fruit and vegetable raising, we ought to say that perhaps no State in the Union presents, within its borders, such a wide range as Louisiana. The orange and olive flourish on her southern borders. The apple, cherry, gooseberry, currant, will do well within her limits. Between the north and south lines, what a range! The fig, pear, apricot, nectarine and every small fruit will flourish. Let the horticulturist ponder this, and let the critic point to any other State (unless perhaps California) where the like conditions obtain, in the regard in the premises.

And as to vegetables and melons, where can those raised here be surpassed?

The nut-bearing trees are worthy of a chapter.

The flowers are beyond our pen, and "beggar praise."

The topics of live stock and grasses deserve far more consideration than we can accord them. Some of the most distinguished thoroughbred horses the world has ever known have been born and raised within the borders of this State.

Mule raising, which has been only the vogue of late, has received a great impetus within a few years; and this business has amply demonstrated the superior quality of the home-bred and home-raised mule.

Long ago cattle raising was a marked feature of the States' adaptation to the business. In few States in this Union was there a broader pastoral life. Millions of acres of her prairies was a cattle range. Thousands of men lived on the industry of cattle-raising. The abundant streams; the rainfall, so evenly distributed throughout the year; the abundant dews; the mild climate; the wonderful abundance, richness of native

grasses; the fact that these supported cattle all winter, made cattle-raising the easiest and most successful of all vocations. They were never fed, never housed, and only saw their owners at branding times, or when wanted for slaughter or deportation. Immigration has greatly narrowed the range; but soil, climate, rainfall and streams, sunshine and dews still abide. And now is dawning the era of improved stock. Herds of Holsteins, Jerseys, Short horns, Polled Angus and other thoroughbreds and registered breeds have got a lasting foothold. Soon the creameries will dot our towns, and dairying will be inaugurated on a broad scale.

Then will come in, broadly, the cultivated grasses: Red clover, Timothy, red top, orchard grass, Kentucky blue grass, meadow fescue, white clover, etc., etc. Every one of these grasses have been tried, as has alfalfa, and all those and others are a success. Let no one fear about these. Sow in October, from 15th to 30th, and success will be certain. We ought to commend our *Lespedeza striata* (Japan clover) Bermuda grass, and the various *paspalums* (carpet grass), as wonderful summer grasses; but space forbids. Suffice it to say, that, with proper management, by combining the summer and winter grasses (all the former we rank as winter grasses), pastures of the most luxuriant and nutritious character can be had the year round. Hay-making, from carpet grass, has become a pronounced industry among the immigrants in Southwest Louisiana. We expect to see Timothy hay exported from New Orleans to New York by sea, in large quantities within the next ten years, the product of Louisiana's soil.

We ought not to forget what a large business is horse-raising in Southwest Louisiana — the famous "Attakapas" — living on grass the year round, with a healthfulness and "bottom" having no rival in the country.

Sheep and hogs do superbly. The reasons are easily explicable. In grass, they have the most healthful of food, almost the year round; and, if the cultivated grasses, heretofore mentioned, be seeded, pasture can be had the year through. In the forests there is a great variety of "mast," many varieties of the hickory-nut, the pecan, many varieties of the oak, beech, etc. Then hogs find a great many worms and other food, and have exercise of unlimited range. The breeds that are an undoubted success, are Poland, China, Berkshire, Essex and Jersey Red or Duroc. Of course the "natives" are included. Some of them grow to good size, and they are very hardy. The Guinea, too, may be included.

Sheep are very healthful; and even in the prairies, where the country, being generally very level, would seem to be against them, because, to the superficial observer, not giving them a dry enough "foot," great success has attended the industry. The animal is very fecund in Louisiana: seventy-five per cent. increase *per annum*, being an estimate within bounds. Their wool is even-fibred and in demand. In much of the area it is not "burry." Owing to their healthfulness, twins are common, and sometimes triplets are borne. Not being subject to the many diseases incident to the transition from green food to dry in winter, and from dry to green food in spring, and other complaints of a rigorous climate, but having green food (herbiverous sustenance) all the year here, they have almost no diseases. "Scab," we believe, is unknown, and foot-rot rare. The only thing that may be accounted an enemy is the ubiquitous cur, and this will be a declining impediment as the years roll by, and in parts of the State is an insignificant obstacle.

Before passing from the topic of live stock, we ought not to fail to impress the fact, that young mules and horses incur no set back or "stunt" here, but grow right on through winter. Another most striking fact is that both these animals, owing to the mildness of our climate,

are remarkably free from troubles of the throat and lungs. And mules seldom have the "big jaw."

As the North and West place so much stress upon the cultivated grasses, we ought, in justice to the topic, to say something more of them. The most unobservant traveler, in the richer lands of Louisiana, must surely have noticed how wonderfully white clover thrives there. It lasts much, if not all, the year, but is at its best from December to June. In the latitude of New Orleans, it is sometimes in bloom by the middle of January, and in our richest lands frequently attains the height of fifteen to eighteen inches.

Red clover has been tried at many points in the State. In some parts, it is growing in profusion, for miles along headrows, and near the tracks of railroads. Introduced at various points in the State, in the wake of the Federal cavalry, during the late war, it is flourishing in utter neglect and disregard, and large quantities of hay are made from it in various localities by those who cultivate it.

Timothy is another grass that has been more or less sown, and that demonstrates its adaptation to our soil and climate.

Kentucky blue grass is beginning to make its way (one knows not how), and scarcely can a locality be found where more or less of it cannot be seen. The few who have seeded it, we think, are satisfied with it, and in combination with Bermuda grass, it will, in a few years, be the favorite with the intelligent stock-raiser for perpetual evergreen pasture.

Bermuda is the most nutritious of all grasses; is never killed, and rarely injured by any drought; will support a greater number of stock to a given area, than any grass known; and is good pasture from May or April, according to latitude, until killing frost.

Kentucky blue grass comes in when the Bermuda gives way, and continues until the Bermuda is in force in the spring. They flourish together, and will last indefinitely; and thus, on the same area, the greatest two grasses of the world flourish, an evergreen pasture indefinitely.

Meadow Fescue we have never seen tried, but from the way it holds on in Audubon Park, where it was sown during the great Exposition, it would seem to be all that could be desired as a winter grass. It is there wonderfully luxuriant, and has been subjected to repeated summer mowings for four or five years.

Of other grasses, we have not so satisfactory a knowledge, but all natural conditions are even more favorable here than in our sister State of Mississippi, where almost all grasses known, have been for years demonstrated an unquestionable success.

In "The New South" heretofore referred to, Col. M. B. Hillyard, in his article on Mississippi, treats the topic of the cultivated grasses at large. For years he had studied them there, and had sown them in many localities. He adduces a mass of testimony in their favor there that will convince the most sceptical. He thus comments on the mass of his testimony: "At this day, 1883, few well-informed persons can doubt that the South has some of the best grass regions on the continent; but I thought it well enough to give the testimony of these eminent authorities, who, nearly ten years ago, were satisfied as to Mississippi and other parts of the South. If such men had no doubts then, who can doubt now?" Again: "I have been so elaborate on grasses, because I would have no reader left in uncertainty as to whether the South is naturally a great grass country." And the author enumerates clover, red, white, alfalfa, spotted medick, Japan and Mexican; Kentucky blue grass, red top or Herd's grass, Timothy, orchard grass, tall meadow oat

grass, Italian rye grass, velvet lawn grass, Johnson grass. Now, as our rainfall and dew are heavier than in Mississippi and our heat not so great; and as our *rainfall is greatest in summer*—we beg the reader to remember this tremendous fact,—and our soil (mainly) more fertile, our *natural conditions are better for grasses than those of Mississippi.*

The immigrant ought to be assured that he need not quit the crops of his old home, by coming to Louisiana. If he prefers to not try rice, sugar-cane, cotton or peas, he can raise corn, oats, rye, barley, wheat and buckwheat. These last three, many may tell him he cannot raise; but it is not the fact. Before the war North Louisiana raised all her own wheat, in many localities. It has been demonstrated that *two* crops of buckwheat can be raised in a season. As to corn and oats, some prodigious crops have been raised; and scarcely any agricultural fair but one or more prizes are awarded for over one hundred bushels of corn per acre.

We desire to emphasize the point that our future agriculture will be prominent in production of sea-island cotton. It has been successfully raised between New Orleans and Mobile years ago, and there is no reason why our Gulf front, west of New Orleans, may not thus be utilized.

Our sugar industry is promised a revolution under the diffusion process; and the epoch of central refineries and small farms will then come in vogue. The land owner will raise cane and sell it at so much per ton to the sugar refiner. From fifteen to forty tons per acre can be raised at a cost of one dollar and fifty cents, after the cane is planted, which costs, say, ten dollars per acre. At least three dollars per ton can be got for the cane. One hand can cultivate twenty acres of cane. Let any one caculate, and he will see the profits under that aspect of the industry. Land can be had at from ten to twenty dollars per acre.

Rice raising is very generally adopted by the immigrants who have moved to Southwest Louisiana from the West. They find the business profitable and easy. Figures vary so much, according to season, irrigation facilities, culture, care in saving, etc., etc., that we refrain from details. From twenty-five to forty dollars per acre is a safe statement of clear money, under average circumstances. The straw makes a good "feed" for horses and cattle, and if the second crop be cut (as is here and there being done), springing up from the shattered seed, a most superb hay can be had—yielding from two to four tons per acre of immature rice and very nutritious stalks. Hardly a richer provender can be found, except that of "pea vine" hay, where the pea is left ungathered, and which (by the way) is a common and wonderful crop.

We pass without elaboration the large crops of sweet potatoes and peanuts ("goobers") that can anywhere in Louisiana be raised.

In this hurried attempt at a broad view of the State, the wonderful system of the waterways of Louisiana ought to receive a word's notice. In this regard, she is without a peer in the nation! This distinction has advantages too great for adequate comment. These waterways furnish highways for commerce, and are influential (or can be made so) to check excessive rates of transportation. They give abundant, and even inexhaustible supplies of water for stock raising, a *desideratum* that any one who has ever raised stock in an arid country will highly appeciate. Almost every stream abounds with fish of very fine quality. The main streams are unfailing—fed from far-off sources. The Mississippi river drains almost half the United States. The Arkansas and Red rivers course several States or Territories, and draw their supplies of water a vast distance from their mouths. Minor streams are fed by almost thousands of streams or brooks which have their sources in the "everlasting hills."

These brooks are clear and pure, and ripple over pebbly and sandy ways, and springs are innumerable in North Louisiana.

The climatologist will not fail to reflect upon the effects of these waters in regard to health and rainfall; and their economic aspect is a matter of no little import to the cities, on their banks, and those to be, for the various uses to which their supplies of water may be put.

So pervading or penetrating is the navigability of many of the streams of Louisiana, that, at thousands of homes, the passenger and his freight can be landed almost literally at his very door. And there is open to all such unlimited opportunities for bathing, sailing, boating, etc. The lumberman finds in many of these streams the cheapest and best of all means of rafting his timber to the mill, and, if he will, of floating his lumber to markets. On the smaller streams are unlimited opportunities for fish-ponds; and one can have the option of catching several species of fish from the brook, or one or more species from the fish-pond.

Louisiana abounds in lakes, (there are over three thousand miles of them, many of them navigable), salt and fresh. In the former are many fine fish, and oysters, crab and shrimp (the true crayfish so dear to Englishmen). In the latter are also many choice species of fish. And many of these lakes are navigable and beautifully wooded; and some day will be beautified with homes cherished as winter resorts. This aspect of these lakes has never had the consideration it deserves. Only a few spots have received the attention their loveliness warrants, and will, ere long, command. Thousands of lovely villas will deck their shores within the next quarter of a century, and they will be graced with the most aesthetic features of flori-culture and arboriculture. The gaily painted yacht will curtsey on their waters, and the embellishments of architecture will add its charms to their shores. And in these lovely homes, the graces of domestic life will embellish and lighten natural attractions; and nature will render back its inestimable blessings of health and the innocent joys of bird songs, flowers, balmy airs and glorious skies. Well might one dilate at large on the large, luscious, innocent, soothing narcotism of the gulf airs, but space forbids. Mr. Joseph Jefferson, the world-renowned actor and impersonator of Rip Van Winkle, places special emphasis on the bland and healing effects of the climate on overstrung nerves and overwrought brain, and the relaxed and overdone business man, at his winter home near one of these lakes.

There are nearly four thousand miles of navigable rivers and smaller streams; while the mileage of brooks is almost incomputable.

In her wealth and variety of timber, Louisiana has no superior, if a peer, in the United States. In point of species of wood, there are probably over a hundred, and their value is unequaled by any State in the Union, and their magnificence surpassed by none but a few of the giants of California. In ornamental trees, her wide-spreading live oaks have no peer. Their breath of foliage and the deep and cordial tones of their color, are a never failing joy, to say nothing of their shapeliness. The *magnolia grandiflora* is another tree of incomparable beauty, both of form and foliage, while its immense creamy chalice of bloom overflows almost all summer with an intensity and pervasion of fragrance that is almost unendurable to some. But space forbids much regard to the aesthetic side of Louisiana's flora. The hardwood—many species of oaks, several of hickory, (the pecan among them), ash, etc., are most superb in size and fibre. Probably no State in the Union can show such profusion, quality and size of the last three species, as Louisiana.

In cypress Louisiana is vastly ahead of any other State in the Union, not only in quantity but quality. This wood is making its way into

many uses, and, within a few years, has met with such general commendation that it is in great demand. Many mills in Louisiana run entirely on its "cut," and the business is one of the most expanded industries of the State. In certain localities, is found bird'seye cypress, especially in demand for ornamental work.

In yellow pine, Louisiana has one of the largest supplies of any State in the Union, and is claimed by some to surpass any State. This tree grows only in the South. Of late, its lumber has grown into great favor, and according to Mr. W. H. Howcott, a leading authority, has come into extensive use in Idaho, Montana, Colorado, New Mexico, Arizona, etc. It has greatly supplanted other lumber in many large Western cities. According to this authority there are over 2,400 saw mills in the South, most of them cutting this lumber, and fifty millions of dollars have been invested in Southern pinelands since the last census. Louisiana has shared largely in these sales, and millions of acres have been sold to speculators and manufacturers. The following compilation from the last United States census, taken from Mr. Howcott's letter in the Baltimore *Manufacturers' Record*, of January 5, 1889, shows the *status* of Louisiana as to yellow pine.

The forrestry bulletins of the last census of the United States give the following estimates of long and short leaf yellow pine standing June 1st, 1880, viz:

	Long leaf, feet.	Short leaf, feet.
Alabama	18,885,600,000	.....
Florida	6,615,000,000	.....
Arkansas	.....	41,315,000,000
Georgia	16,778,000,000	.....
Louisiana	26,588,000,000	21,625,000,000
Mississippi	17,200,000,000	6,775,000,000
North Carolina	5,229,000,000	.....
South Carolina	5,316,000,000	26,093,200,000
Texas	20,508,000,000	26,093,200,000
Total	117,119,000,000	121,901,400,000

Louisiana has long been known to possess some minerals in great force. Her deposit of rock salt is one of the purest and most extensive in the world, containing over 99 per cent of chloride of sodium (common salt), It is crushed or powdered, and over four hundred tons are sent away from the mines daily—a railroad having been built to the mines. This is on Petite Anse island. In the northern portion of the State, salt, long ago, was obtained by boiling water from salt wells.

Near Lake Charles is what is claimed to be the largest deposit of sulphur in the world — a stratum of crystalized sulphur, three hundred feet thick, of remarkable purity. There is quite a flow of petroleum there, lately discovered, which is a fine lubricant just as it comes from the well. There too, is found limestone, gypsum and alum. In marbles, Louisiana is rich. There are several colors — a black, dove colored, and a dark, mottled marble, streaked with white veins. This last style is in immense force, accessible, easily quarried, and is very tractable. In one instance, there is an immense hill, almost mountain of it. There are several varieties of limestone, some of very fine quality, and in abundance. There are some sandstones of good quality, and a peculiarly fine millstone grit. Kaolin is found in great abundance, and of fine quality. Marl is also abundant and of good quality.

It is only of very late that the precious minerals have been found. But careful, conscientious investigations assure us that gold and silver have been found. Some free gold has been discovered, and there is cer-

tainly to be found auriferous quartz, and a limestone bearing gold. Several assays have proved this, and the testimony of a very eminent geologist is secured as to the quartz. A gold-bearing limestone has been found, assaying eight ounces of pure gold to the ton, on the authority of a thoroughly reliable gentleman. Silver is found in the limestone, and many assays have been made of it. From the testimony we have, there is a very rich treasure of this mineral in Louisiana. There has been nothing but a private and superficial exploitation made; but we are assured that the auriferous quartz, and the silver-and-gold-bearing limestone are in great force, particularly the former. Iron is found; but, at this stage of investigation, we cannot commend it from an economic standpoint. It is an act of bare justice to say that Hon. W. H. Jack and Mr. Samuel H. Houston have been conspicuously identified with the exploration of the more recently found minerals of the State. Before leaving the topic, we state that we have been recently shown a specimen of semi-anthracite coal by a gentleman of this State, who assures us that it was found in this State, and that he thinks it exists in quantity. If this be so (and we regard the information as reliable), it is a most significant fact. In conclusion upon the topic, we beg to urge upon capitalists and explorers the minerals of Louisiana as well worthy of their attention.

We now proceed to a brief consideration of the various lands of Louisiana, as categorized on the topographical map of Louisiana, constructed by the eminent Prof. S. H. Lockett, now deceased. He makes eight grand divisions of them, to-wit: "Good uplands, Pine hills, Bluff lands, Pine flats, Prairies, Alluvial lands, Wooded swamps, Coast marsh." Of the "Good uplands" he says: "Soil; Sandy gray, or yellow loamy, or red ferriginous. Subsoil, red clay. Small bottoms, fertile. Forests: Oaks, hickory, ash, beech, maple, dogwood, gums and short leaf pine. Water good. Products: Cotton, corn, potatoes, small grain. Area, 8,200 square miles." With the exception of East Feliciana (which is placed in isolation, *entirely* in this belt), the area in question is situated along the northern half of the western border of the State, and in the northwest and west part of the north border of the State.

The valley of the Red river throws a long, narrow belt of this territory in the category or classification of "Alluvial Lands," in variant widths, of from one to two townships wide, stretching from nearly the extreme northwest corner of the State, pretty straight southeast.

Also there is a narrow belt of "Alluvial Lands" penetrating this "Good Uplands" belt, about thirty miles long and two or three wide, along Bayou Dauchite, running almost due north and south in West Webster parish. Then the Ouachita river and Bayou Darbonne constitute some belts of "Alluvial Lands" in their sinnosities, on the northwest border of this "Good Uplands" territory.

The parishes in which the "Good Uplands" obtain almost wholly or totally, are Sabine, DeSoto, Caddo, Bossier, Red River, Bienville, Webster, Lincoln, Jackson, Union. A long, narrow strip of the "Good Uplands" penetrates southeast through central Caldwell parish, well into Catahoula. A large portion of Morehouse and Ouachita parishes are also in the said territory.

This belt, of which we have been writing, is emphatically a country of hill and dale, finely wooded, healthful and abounding in never-failing springs and streams—the latter teeming with fish. Its topography is a lofty rebuke to that stereotyped misconception that deems Louisiana a *morass*. This area particularly sustains the language of Col. H. S. Lockett, who made the topographical map referred to, and which is quoted by Col. M. B. Hillyard in his book, "The New South," as follows:

"Most people conclude that Louisiana is, throughout its entire extent,

a low, wet, swampy region. They imagine its surface to be a great plain of wonderful fertility, when at all arable, with an undefinable succession of deep jungles, tangled swamps, marshes, lakes, sloughs, cane and cypress brakes. But these misconceptions will be speedily dissipated by a journey into the interior, and it will be discovered that few States of the Union possess a greater diversity of surface, soil, climate, scenery and products than Louisiana." Will the reader please pause, for just a moment, and let the import of that expression, "diversity of surface and scenery," sink into his comprehension? The truth is that this "Good Uplands" is a pleasing and picturesque country. Its variation of contour is almost constant; and, while there is neither grandeur nor sublimity in its scenery, it is the utmost remove from monotony of configuration.

Its wealth of hard wood timber is great, and will, some day, play a great part in industries into which it may enter—agricultural implements, wagon, carriage and furniture factories, tanneries, and, as accessories of the last, boot and shoe manufactories, etc. The choicest fruits, common to higher latitudes, may be raised here. We feel quite sure that the Delaware grape can be raised to perfection on its hills. The fig is at home. But we can dwell no longer on this area, except to say that it is pierced on its northern border by a prominent railroad and a branch road, and that other lines are surveyed which promise still further railroad facilities; that a considerable part of its area is penetrated by navigable streams, on which steamboats ply; and that more or less minerals are to be found there.

The next grand division of Louisiana, on the topographical map, is that of the "Pine Hills." These are situated in the northern part of Calcasieu parish, clear across its longitude, constituting, in round numbers, about one-third of its large area; the whole of Vernon parish, except a thread of alluvial land on the Sabine river; about the equivalent in area of six townships in Southeast Sabine parish; the southwest fourth part of Natchitoches parish, and a belt a township, or more wide across its south boundary, and about the equivalent of five townships and embracing the area of its narrow north longitude; the entire area of Winn parish; almost the entirety of Grant, except a narrow strip of "Alluvial Land" in its southwestern corner—the bottom of Red river—and a mere ribbon of the same sort of land on the south half of its west border, the bottom of Little river; the greater part of Rapides parish, which is penetrated its entire length by the "Alluvial Lands" of the Red river bottom, in a northwest and southeast direction, and constituting a belt of the latter two townships wide, which throws the parish into a large area of "Pine Hills" on its west, and a small area northeast; about the equivalent of five townships in Northwest Saint Landry parish; about a third of the area of Northwest Catahoula parish, about the equivalent of fourteen townships; a wedge-shaped portion of Bienville parish, sharply terminating near Sparta, with its base covering almost all the south border of the parish, about three townships wide in longitude; and a block in Jackson parish, two townships wide in latitude, and a little over three in longitude in the southeast area.

The above is a rude description of the area of the "Pine Hills." It is a character of country, mainly broken. Its pine timber is, in some areas, superb. It is thinly settled; abounds in game (as does much of the "Good Uplands"); is beautifully watered, with springs and clear streams, and plentiful in fish and healthful. Here are found much of the best minerals of Louisiana.

Of this "Pine Hills" division Professor Lockett thus writes on his topographical map aforesaid: "Soil: Thin, sandy, poor; small bottoms good. Forest: Long leaf pine and black jack oak. Little under-

growth. Water good and abundant. Products: Cotton, corn, potatoes, cattle, lumber. Area, 8,600 square miles.

The next grand division on the topographical map, is the "Bluff Lands." They constitute a comparatively small area of the State, but a very peculiar soil, that is known to the geologists as "loewess." Professor Lockett thus speaks of it: "Soil: yellow loamy, very fertile; washes badly. Forest: white oaks, water oaks, pin oaks, beach, poplar, magnolia, holly, sweet gum, giant canes and many vines. Water scarce and bad. Products: cotton, corn, cane and rice. Area, 2,480 square miles." In this division are situated almost the whole of the parish of West Carroll; virtually, all of Franklin; the eastern two-thirds part of Richland; two or three small areas of Catahoula (detached and strung along in the eastern portion of the parish, and tending northeast and southwest), altogether constituting an area not more than equivalent to two townships; a small area in northeast Rapides (say the equivalent of two townships); nearly two townships in northwest Avoyelles, and several small areas in devious ribbons or narrow strips, elsewhere in the parish; a long strip, very narrow, running along just west of Bayou Cocodrie, on east of Opelousas, on past Grand Coutcau, in the western part of St. Landry parish; still on, a narrow strip in northwest Lafayette parish (constituting the Carencro hills, to Lafayette (formerly Vermillionville); then, starting in a little below this town, and running south in a narrow strip (here called Côte Gelée hills), and bordering some distance the west valley of the Teche; on past New Iberia, in Iberia parish, still a narrow strip, and here trending sharply west; then, in isolated spots, ending on the marshes bordering the bays of Côte Blanche and Vermillion, and constituting the remarkable islanded hills Côte Blanche, Grand Cote and Petite Anse—the remarkable salt mine before mentioned, and otherwise known as Avery's Island. We had like to have forgotten to mention a hill near by the winter home of Mr. Joseph Jefferson, the renowned actor. Then, on the west side of the Mississippi river, it comes in, at the north end of the State, constituting almost the entire soil of West Feliciana parish; almost all of that of East Baton Rouge, except a narrow strip, west on the Mississippi river, and a small wedge of "good uplands" in the northeast portion of the parish; then, bulging out, it covers the entire west of Livingston parish, and subsides in a small area in the southwest corner of this parish, and a little bit of the extreme northwest portion of Ascension parish.

This last mentioned area is a nut not thoroughly cracked by science, we believe, and we do not meddle with it. Some day it may have its revelations below the surface. But, as revealed, it constitutes a very choice soil, but one needing management; and suggesting, as its choicest use, pasture land. Red clover flourishes on it astoundingly.

The next division of Col. Lockett, is the "Pine Flats." This is an area in Calcasieu parish of cold, flat, poor land, covered much of the year by water. It is mainly west of the Calcasieu river, and north of the west branch of this river. Commencing near the Sabine river (the west border of the State), about three townships wide of latitude, it trends northeast, gradually narrowing, running through nearly ten townships (sixty miles), until it terminates in a small area on the Calcasieu river, at a point where the "Pine Hills" and the "Prairies" abut on this river.

The next grand division of Professor Lockett, is the "Prairies." This is the seat and centre (near its western border) of the great Western immigration, which, starting a few years ago, under the auspices of my predecessor, Hon. Wm. H. Harris, has now transfigured it from a vast cattle range to a region thickly populated, and dotted with the best as-

pects of a well-settled Western prairie State. For their share in this great work of transformation, we have sought, in the opening part of this article, to give the participants therein some measure of the credit due them. For a description of this country, we are fortunately not left to our own words. Other pens than ours, above the suspicion of partialty, have anticipated us. In Col. M. B. Hillyard's "The New South," we find extracts from the works of very eminent pens. Professor Eugene W. Hilgard (one of the most eminent scientists of the day, now of the University of Calfornia), says. "Few sections of the United States, indeed, can offer such inducements to settlers as the prairie region between the Mississippi bottoms, the Nez Pique and Mermentau Healthier, by far, than the prairies of the Northwest; fanned by the sea breeze; well watered; the scarcity of wood rendered of less moment by the blandness of the climate, and the extraordinary rapidity with which natural hedges can be grown for fences; while the exuberantly fertile soil produces both sugar cane and cotton in profusion, continuing to do so in many cases, after seventy years' exhaustive culture. Well may the Teche country be styled, by its enthusiastic inhabitants, the 'Garden of Louisiana.'" Of the parishes of St. Landry, Lafayette. St. Martin, Iberia, Vermillion and St. Mary (mainly the area included in the above description of Professor Hilgard), Col. Daniel Dennett writes, devoting to them his pamphlet before referred to, "Louisiana As It Is." From copious extracts from it, in Col. Hillyard's "New South," we make the following quotations: "These six parishes contain more than 3,000,000 acres of tillable land, most of it of inexhaustible fertility. Even most of the sea-marsh, and all of the swamp lands, may be reclaimed by local levees and draining machines, and may become the most productive rice and sugar lands of the State. * * * * * * On thousands of acres the grass grows on a smooth surface, under the waving branches of noble trees. These lands are far more beautiful than the famous woodland pastures of Kentucky. The trees have a more luxuriant growth, the foliage is richer and hangs out on the broad branches in a more generous abundance, and the soil is rich beyond anything we ever saw in the great West. And it is the cleanest looking country we have ever traveled over. The beautiful smooth prairies look as though they had just been washed; the grass looks like a lawn neatly shaved by some 'fine, old English gentleman,' who prides himself on his aristocratic estate. The fat herds grazing upon these green prairies help in giving the finishing touch to this magnificent landscape scenery." Again, in glowing language, he writes of it as "That magnicent portion of Louisiana, west of the Mississippi, the Teche and Opelousas region, usually called 'Atakapas and St. Landry'—the land of enchanting scenery, of beautiful bayous, and glassy lakes, and bays, of splendid prairies, and noble forests, of pleasant skies and gentle breezes, the land of flowers, of beauty and of health."

The following pen-sketch is pitched in the area described by Col. Dennett:

"I never stand upon the banks at night, of poem-honored Teche, that romance of the olden time does not come to mind. Evangeline, the lovely heroine of Longfellow's immortal story, is pictured by my imagination. In the long ago, one moonlight night in summer, on her tender, futile quest of her husband, Gabriel, she ascended that lovely stream. Methinks the sky was tender, as it was softly bright, and that the stars glimmered mildly in a pathetic haze, as though they were dewy with sympathy at the sorrow of her life. The winds are whist, save now and then the gentle sigh of soft zephyrs from the near-by gulf, perfume-ladened and plaintive as though they, too, were sympathetic. She

is in a canoe, paddled by her escort. Gentle is the stroke of oar, so as to not impair any sound that may give a clue to her anxious ear. I see the silvery run of water from the uplifted paddle glisten in the moonlight; and hear the faint tinkle of the pearly oar-drip on the lucid water. With strained grasp, a lily hand on either side, she holds the canoe. Her head is thrown forward and sidewise, face a little lifted, with keen-attent of ear. The light of night shows the refined pallor of her face, its chiseled features deep with the pathetic traits of that sorrow that has marked, but cannot mar, her beauty, and that has engraven on those lovely lineaments an exalted and ensouled spirituality. Her large, sorrowfully-beautiful, midnight-eyes are "homes of silent prayer," and softly gleam with the fixed mistiness of unchanged grief. Her hair, a stream of downy darkness, floods her shoulders, and waves far below her shapely waist. Her pure, rich lips are faintly parted, and her lovely mouth, with the pearly setting of its teeth, looks like "a rosebud filled with snow." Slowly, almost noiselessly, glides the canoe. Now and then it passes the shadows of the stately magnolias that gloom the silvery stream here and there; and, from the censers of their glorious blooms floats a fragrance that charms the air, and seems a tribute to and effort at lenitive of her anguish. In the odorous tree, over head, the mocking bird softly shakes its lay, in a touch of low and curious plaintiveness, one sometimes hears at night, in broken melodies; as though it, too, knew her pain, and would fain attempt her soothing. On she goes. Fainter grows the sound of ripple from boat and tinkle of water-drip from paddle. Dimmer to vision becomes the figure of the sad, vigil-worn maiden. She is out of sight and into silence.

The same moon and stars look down now, as in the long agone, when they lent their light in aid of her unrewarded quest. Other magnolias scent the midnight air, other mocking birds haunt their branches, and attune the night. The Têche still threads its flowery vale. Evangeline and her Gabriel are long ago in Heaven; but as long as the river flows, and man has sensibility, and our language lives, will the Têche be dear to all who have read the story and looked upon the stream; and with its waters tender tears will mingle, and the softened imagination limn the immortal maiden."

The following (with a short introductory caption) is taken from the Lake Charles (Louisiana) *American*, and is from the pen of one of the most gifted and celebrated literary ladies of the State, the wife of the commissioner of immigration of Louisiana, Hon. Wm. H. Harris:

SOUTHERN LOUISIANA AS A HOME FOR WOMEN.

We copy from *Harper's Bazar* an article under the above caption, written by a highly gifted and cultured lady, the wife of our late distinguished Commissioner of Agriculture, Hon. Wm. Harris, of Calcasieu parish. Mrs. Harris writes as a sensible lady from practical experience and a close observation of the needs and pleasures of the home. This is a most valuable acquisition to our literature upon Southwestern Louisiana. It is in the ability to provide the ideal home from the woman's standpoint, that this country puts forth its highest claim. We ask every lady to read this excellent article:

SOUTHWESTERN LOUISIANA AS A HOME FOR WOMEN.

Mrs. Wm Harris, in Harper's Bazar:

Though man may not live by climate alone, yet, on the other hand, climate is sometimes the only thing that enables a man to live at all. Many lands did I traverse, and much hard-earned money did I spend to exercise the rheumatic fiend that refused to be conjured down. Happening a few months ago to be in New Orleans, I remembered that an old

friend lived not so very far from that city, in Arcady, for so is this pastoral country called, having been settled many years ago by those exiled Acadians from Nova Scotia, who to their country of enforced adoption gave the name of Acadia. I forgot for a season my ailment, my personal devil left without "special request," and now the only consciousness of my bones is that therein dwell many "springs." The never-failing breeze which blows direct from the Gulf of Mexico has no sting in it; it strokes you as with a glove of fur, until soothed by its influence, you feel happy without knowing why. It makes the skin smooth and soft, and if mesdames the complexion vendors could but bottle it, what fortunes they would make! In this delightful climate, where illness is almost unknown, people acquire the habit of living, and keep on *ad infinitum*, until, as the proverb of the Cajuns (the descendants of the exiled Acadians), they get old, old, so old! then shrivel up and blow away."

> "Beautiful is the land with its prairies and forest and fruit trees,
> Under the feet a garden of flowers, and the bluest of heavens
> Bending above, and resting its dome on the walls of the forest,
> They who dwell there have named it the "Eden of Louisiana."

So wrote Longfellow of Southwestern Louisiana, which comprises the parishes of St. Mary, St. Martin, Iberia, Lafayette, Vermilion, St. Landry, Calcasieu and Cameron.

Would that I could preach the doctrine of cheap homes to the women who work for a beggarly wage that barely keeps breath in their body — those who labor early and late in stifling factories, who stand behind counters, and who are bondswomen to the needle!

The government reserves thousands of acres of well-watered fertile prairie land, to be given away to *bona fide* settlers. Under the homestead act woman, widow or spinster, of twenty-one years of age, may, upon payment of fourteen dollars at the Land Office in New Orleans, enter one hundred and sixty acres of land. During the next five years she must pay an additional sum of four dollars and seventy-five cents, and at the end of that time the land is inalienably her own. It is understood that she complies with certain requirements. Under the timber cultureact, upon payment of a like sum, she may become the owner in three years of an additional one hundred and sixty acres of land.

The nature of this land may be guessed, when a few years ago the Chicago *Tribune* said: "If by some supreme effort of nature western Louisiana, with its soil, climate and productions, could be taken up and transported to the latitude of Illinois and Indiana, and there be set down in the pathway of eastern and western travel, it would create a commotion that would throw the discovery of gold in California in the shade at the time of the greatest excitement. The people would rush to it in countless thousands. Every man would be intent upon securing a few acres of these wonderfully productive plains."

'Suppose a woman of sense and energy determined to make a living on a portion of this land — could she do it?" you ask. Statistics bristle with the facts of woman's success as farmers, stock-raisers, bee-keepers, florists, poultry-breeders, in the west and northwest, under most adverse conditions of climate. And in this land of easy conditions, in a climate which may be called perpetual spring, where growth of vegetable life is marvelous, failure ought to be well nigh impossible, unless the woman lacked the saving grace of common sense. In the variety and perfection of its products this is a wonderful region, producing all the trees, shrubs, fruits, cereals, and grasses grown in semi-tropical and temperate countries. What, then, could our energetic woman do? She

might, for one thing, raise sweet potatoes. They yield one hundred and fifty bushels per acre, with the easiest of cultivation, and are unrivalled as food for stock. Why also should she not send evaporated and desiccated sweet potatoes to northern markets? Perhaps vegetables would suit her fancy as a money crop. Every known vegetable may be grown here. The celery, cauliflower, and cucumbers of this region are unsurpassed, and gardening may be done the whole year round.

Why should she not raise fruits? Peaches, pears, nectarines, plums, apples, quinces, grapes, figs, persimmons, pomegranates, oranges and citron grow to perfection. Strawberries, blackberries and dewberries are prolific. What our fruit-grower cannot send to market, she may can, or evaporate. If she have a hand, cunning in confections, she is sure of many a dollar.

To some women the care of cows is fascinating, and dairying ought to pay where milk sells for ten cents a quart, and butter for thirty or forty cents a pound, as it does here and in all the Southern cities. Grass is green the year round, and cows require but a minimun of extra feed.

Then their is floriculture. Where hedges are made of roses and Cape jasmines (gardenias), there must be possibilities in the culture of flowers. Stick anything in the ground and it grows. In cut flowers, in growing plants for market, in the extracting the volatile oils, the distillation of perfumes, and the rendering of the essential oils, there is a large amount of money to be made, and the field is not occupied.

Bees, that find their own keep in a country which, from February to November is a sea of bloom, would be another source of profit. That woman who would supply the New Orleans market with spring chickens during the months of February, March, April and May, would grow rich. Poultry of all kinds succeed admirably, are free of disease, and hens lay the entire year. The cost of raising them is small, not much housing being necessary, while they may find green food every month of the year.

But perhaps our woman farmer may be more ambitions, and desire to go into stock raising. Why not? There is no occult science in raising pigs, sheep, cattle and horses for the market. She may here enter into the lists with men, and success may smile upon her, for here, if anywhere in the United States, may stock-raising be made profitable.

Why should she not essay rice farming and succeed? Do I not know a young Creole girl who, after her brothers had plunged their sugar plantation hopelessly into debt, begged their creditors for a few years' time, and at its expiration could show every liability met, and money in bank?

All these things, and many more, are waiting to be done by women who will go in for hard work with the same courage and determination that men give to any line of business. Nor must your pioneer expect to enjoy at once all the advantages common only in thickly settled countries. Yet let her not be dismayed. Homesteading here is a delightful process, compared to that ordeal in the Northwest. There can nothing be seen but a broad expanse of barren prairie, without a schoolhouse or village in sight, without settled and defined laws; no neighbors "nearer than twenty miles," no associates, no newspapers, and a trying climate. In Louisiana the prairies have the look of well-washed green lawns, which would delight the eye of even the good old English gentleman. Every three or four miles their continuity is broken by well-wooded streams. Roads are laid out and worked, making communication easy all the year between the different districts. Churches of every denomination are everywhere to be seen; an educational system is in force; the laws are old, well settled and defined, and the people kind, hospitable and courteous; and the settler begins life in a region

abundantly supplied with all the essentials of civilization and refined life.

Of course the great army of working women, and that multitude who make shirts at fifty cents a dozen, are not depositors in the savings banks. There are, in all our large cities, numbers of wealthy women who would gladly contribute money to any practical charity. Induce them to form a guild to promote the independence of women. An association might be formed to pay the traveling expenses of settlers, to enter lands, to build thereon, to stock the farms with necessary implements and animals to make a crop, and to provide sufficient food until each family should be self-sustaining. To relieve itself of the odium of charity, it might consider itself a loan association, lending its funds upon easy terms and long time.

This country might also well be the "Promised Land" to numbers of other women, more happily circumstanced perhaps than those just cited, yet who are restless, dissatisfied with the limitations imposed upon them by sex, and who feel within them the stirring of financial and executive possibilities in lines of business not orthodoxly feminine. There ought to be, willing to enter in and take possession, a cloud of hard-worked and underpaid school teachers who, however, have contrived to save a little; then there are the shoals of single women with certain fixed incomes of their own, but who live more or less dependent, undeveloped lives in the homes of married brothers and sisters. These would not need the aid of any association, but might find co-operation among congenial mates and advantage.

Thefore send us an army of women workers in this "good land, a land of brooks, of water, of fountains, and depths that spring out of the valleys and hills; a land of wheat, and barley, and vines, and fig trees, and pomegranates; a land of oil, olive and honey; a land wherein thou shalt eat bread without scarceness, thou shalt not lack anything in it."

The reader ought to remember that Acadia parish (since the above was written, cut off from South St. Landry parish) is entitled to the benefits of the above language of Col. Dennett.

Again, it must be borne in mind that the relation to Prof. Hilgard's language, the prairie west of the Nez Pique seems not included. Now, the bulk of the Western immigration is west of the Nez Pique. As early as two years ago, it had lapped from the Mermenteau and the Nez Piqne bayous, as far as Lake Charles (and even beyond), and from twenty miles or more north of Jennings to Lake Arthur (some ten miles south), and is even beginning to creep into Vermilion parish, (also a lovely country), and almost untouched by immigration; from Lake Arthur to Abbeville, a belt of country forty miles long and from nine to twelve miles broad south of Bayou Queue de Tortue and east of Lake Arthur. It is deemed utterly superfluous here to commend a country populated by over a thousand Western families, in which they have lived for years; which they have tried thoroughly, and with which they are delighted; which country is outside and west of Prof. Hilgard's description.

The topography of most of this prairie is level or flat. The streams are wooded with cypress, oaks, hickories, gum, etc., and some of the trees are large. The open prairies are unwooded, and firewood is *planted*—little being needed—and consists of the China tree (mainly), a fast growing tree. Catalpa is largely planted, too.

The immigrants there are moving on all the lines of advanced agriculture; fruit raising, grass growing, hay making, stock (improved) raising, etc.

We now append Prof. Lockett's brief description of the "Prairies" on the topographical map in question: "Prairies—Soil: Grayish yellow, good and improves with use; treeless, grass covered, with coulées bordered with timber, and 'marais' filled with rank, tall grass; water not good. Products: Cattle, corn, cane, rice. Area, 3800 square miles."

We think it but just to say that the expression, "water not good" is rather too sweeping as applied to all that country.* It is quite certain that we have credible testimony, from Western sentiment, to the contrary. The prairie is situated in the parishes west of the Teche to the Sabine river, and in the southwest portion of the State, and is in the parishes of Calcasieu, Acadia, St. Landry, Lafayette, St. Martin, New Iberia and St. Mary.

The next grand division, by Lockett, on his topographical map, is the "Alluvial Land." This area he thus characterizes: "Soil: Black, dark red and reddish gray; very fertile. Forest: Water and live oaks, gums, willows, cottonwood, elms, ash, etc.; cane-breaks common, highest on banks of streams. Products: Cotton, corn, cane, tobacco, rice, oranges, bananas, etc. Area, 5,600 square miles." This area is one of the most fertile spots on earth, and one of the most enduring soils. Corn, cotton and rice are the main crops, and corn, oats and hay (mainly peavine) are merely adjuncts. From Col. M. B. Hillyard's book, "The New South," we copy the following, there accredited to a work of Dr. Joseph Jones: "Louisiana possesses, perhaps, the most fertile soil of any of the States of this Union, in virtue of the large proportions of the alluvium of the Mississippi Valley inclosed within her borders."

"As is well known, a wide belt of recent alluvium borders the Mississippi river, from the mouth of the Ohio to the Gulf, seventy-five miles wide in the greatest expansion at Napoleon, and twenty-five miles in its greatest contraction, at Natchez and Helena. The area of the alluvial tract, above the delta, is 19,450 square miles. The depth of the alluvial deposits from Cairo to New Orleans ranges between twenty-five and forty feet.

The area of the delta of the Mississippi river, which lies almost wholly within the borders of Louisiana, assuming that it begins where the river sends off its first branch to the sea, namely at the mouth of bayou Atchafalaya, is estimated at 12,300 square miles. This would be at the mouth of Red river, in latitude 31°, whilst the mouths of the Mississippi are in latitude 29°, so that the delta extends through two degrees of space. The entire delta is elevated but a few feet above the level of the Gulf of Mexico, and from its fertile soil, and from its proximity to the Mississippi river and bayous, is perhaps as fertile as any body of land in this or on any continent, and is admirably adapted to the cultivation of rice and sugar-cane."

But the reader must be careful not to confound the *delta of the Mississippi river* with the "*Alluvial Lands*," of Prof. Lockett's classification. While much of the "Alluvial Lands" are in the *delta*, there are considerable areas of "Alluvial Lands" on Red river, the Ouachita, etc., and there is a considerable area of marsh land, "Coast Swamp," as Prof. Lockett terms it, in the delta of the Mississippi river. Then it must be remembered that, according to Dr. Jones, the delta only *begins* at the mouth of Red river, leaving all the area in the Mississippi bottom, *outside* and *above* the delta, to be classed as "Alluvial Lands."

*Professor Eugene Hilgard, in his "Supplementary and Final Report of a Geological Reconnoissance of the State of Louisiana," says of a part of Calcasieu prairie: "Pretty good well water is obtained here at fifteen to twenty feet."

The north boundaries of Louisiana, on either side the Mississippi river, are not coterminous. On the west side the river, the north boundary of Louisiana is the State of Arkansas, across its whole area from the Mississippi east to the west boundary of the State of Texas. This north boundary, between Arkansas, is not a *natural*, but an *arbitrary* one, and is a straight line due east and west. On the east side of the river, Louisiana is fronted by Mississippi State for over a hundred and twenty-five miles in an air line, south. The river, for this distance, is the boundary between these States. After awhile the river runs *through* Louisiana, thus giving both sides of the river a bottom in the State. As a consequence, there is very little of "Alluvial Lands" on the Mississippi river, on its east side, in the State: Ascension and St. James parishes representing its chief areas there. But to the point, now, of denominating the areas in the "Alluvial Lands," beginning at the northernmost parish in the State, at the point where the Mississippi river touches its territory: West Carroll is entirely in the belt; as are Madison, Tensas, Concordia, Point Coupee and West Baton Rouge.

These parishes all succeed each other south. Iberville, both south and west of the last parish, has most of its territory on the west side of the river, in the "Alluvial Lands," but a little area projects to the east side; and all the parish is "Alluvial Land." Then comes a very small part of Ascension parish, on the west side—the main body being on the east side of the river. Next follows Assumption parish—all its territory west of the river, and in the "Alluvial Lands." Between its east boundary (it has no front on the Mississippi river), a little area of St. James parish is on the west side the river, its main area being east of it. Still coming southward, and trending with, but not touching the river, comes the parish of Lafourche; it all being in the "Alluvial Land" belt, except some spots of "Coast Marsh," as it is denominated by Prof. Lockett, on the map in the premises. East of Lafourche parish, and south of St. James, a small area of St. John Baptist parish is west the river, leaving its main area on the east side. Then comes St. Charles, the river throwing about an equal quantity of "Alluvial Lands" on either side. South of Lafourche parish, west of the river, comes that of Terrebonne. This parish terminates in long, sprangling, antennæ like points, in the marsh. These capes of land look like the human hand, with open fingers: the capes standing for the fingers, and the intervening spaces occupied by the "Coast Marsh." And down these capes, course streams, emptying into the Gulf of Mexico. This parish has no part of its territory on the Mississippi river. South of St. Charles parish, and adjoining it on the river, is Jefferson. Its area is split, too, by the river; throwing a small area of "Alluvial Lands" on either side of the stream. Down the river, and succeeding Jefferson, on either side, is Plaquemine parish. There are narrow areas of "Alluvial Lands," mere strings of this sort of land, looking like raveled shreds of the solid tissue above. Opposite, on the east side of the river, is a body of this "Alluvial Lands," carved into devious shapes by the incisions of "Coast Marsh" areas. On this area of "Alluvial Lands," on east of the river, Orleans parish, is built the city of New Orleans. On the east side the river, and south of Orleans parish, is that of St. Bernard. This parish has a narrow strip of "Alluvial Lands" bordering the river, another body sprangling off southeast, and still another skirting south and southwest of Lake Borgne. Going back now to the territory of "Alluvial Lands," on the east side of the river, where the north boundary of Louisiana abuts upon the south line of Mississippi, by an arbitrary division running east and west, we find a strip of West Feliciana parish in the territory of the "Alluvial Lands"—a narrow area, bulging out here

and there, like a pocket, in the bends of the river, and running the whole of its western boundary. Then south, succeeds the parish of East Baton Rouge, with a small area of the "Alluvial Lands" adjoining the river on the north and south sides of the west side of the parish, and terminating on the river. At Baton Rouge—the Capital of the State—the "Bluff Lands" penetrate to the river, intervening between the "Alluvial Lands" area north and south of it. Into Livingston parish jut several small points of the "Alluvial Lands," on its south border; from this area that proceeds in such force in Ascension parish. Thus we have, very unsatisfactorily, given a rough description of the "Alluvial Lands" adjacent to the Mississippi river, and mainly in its bottom. Much of it is a strip of land, behind levees, to keep out overflow, backed by "swamps." In proportion to area, a mere ribbon of land is cleared and in cultivation. The "swamps" (so-called), is wooded area, susceptible of being made arable, and is not irreclaimable, as might be supposed; but is hard firm soil, not yet wrested from the forest. The area, in the main, is densely populated; divided into plantations, with narrow fronts, and running back to various distances. Every plantation once had a superb home (and many are still fine), with groves of magnolia, live oak or pecan, sometimes all these, with a sugar house and "quarters" for the slaves—long rows of cabins on either side of a single street. All were within easy view of the river, and "the floating palaces" once plying the Mississippi river, steamed by the very doors of the villas, and stopped on the fronts for passengers and freight. Before the war, this country was one of the richest and most prosperous parts of the United States, and its hospitality was most cordial, lavish and cultured. Its inhabitants were badly broken in the storms of the late war, but are now recuperating. No traveler ought to miss riding up or down the river just to view the country. On either side the river now, above New Orleans, a railroad runs near the river; one, the Mississippi Valley, clear along the east side, and the Texas and Pacific on the west side, for some way. South of New Orleans, on the east side, runs the Gulf and Shell Beach railroad quite a distance; and, on the west bank, below New Orleans, another railroad is to be built. Below New Orleans are some of the handsomest and largest orange groves in the world; all around New Orleans, and for some distance above, upon the river, are many; and there is a large area about, below and west of the river in the orange-belt proper.

In West Carroll parish there is a narrow strip of "Alluvial Lands" of the Mississippi bottom in its middle-western border. In the parishes of Richland and Franklin, on their east lines, is also a vein of the same territory, which is, subordinately, bayou Macon bottom. Catahoula parish has a wide east side of these "Alluvial Lands;" the Mississippi bottom there stretching away to the "Pine Hills" classification, although it is locally considered as bottoms of the various bayous traversing the area. In Avoyelles parish there is much "Alluvial Lands," a sort of common bottom of the Mississippi, Red and Atchafalaya rivers. In east St. Landry this "Alluvial Lands" stretches west, to a little east of Chicot, Opelousas and Grand Côteau, with the exception of narrow strips of prairies skirting the Teche on either side, starting a few miles southeast of Opelousas, and running in that direction to near Franklin, in St. Mary parish. This "Alluvial Lands" belt in St. Landry parish, (the "Delta," under the description of Dr. Joseph Jones, and in general terms the Mississippi river bottom) is, subordinately, the bottoms of bayous Rouge, Wauksha, Crocodile, Bœuf, Courtablean, Teche, Atchafalaya et al. St. Martin parish is largely in the "Alluvial Lands" bottom of the Mississippi river (with skirts of prairie along the Teche, on either side, on its western border, all through it, from north to south), but, sub-

ordinately, in the bottoms of the Teche, Atchafalaya and other bayous. Then comes Iberia parish, with its east parts in the "Alluvial Lands" of the Mississippi bottom, and, subordinately, the bottoms of the Teche and Grand Lake, with skirts of prairie on either side the Teche, narrow on the east side, and from six to twelve miles wide on the west side. Then comes St. Mary parish, with two distinct branches of "Alluvial Lands" in the Mississippi river bottom, thrown into these divisions by the waters of Grand Lake, which, running nearly due north and south, divides the area. And, subordinately, this area is termed bottoms of the Teche, Atchafalaya, Grand Lake and Grand river. With the exception of a narrow area of prairie in the northwest corner of St. Mary parish, all its land is in Prof. Lockett's classification of "Alluvial Lands" and "Coast Marsh," including "Wooded Swamps," which is a common territory with the "Alluvial Lands," as will hereafter more fully appear.

We have thus far denominted the "Alluvial Lands" with regard to their situations in the Mississippi bottom—in a large and most comprehensive sense—and the delta of the same.

We now proceed to locate the "Alluvial Lands" of Louisiana, situated elsewhere. They are next in force in the valley of Red river. This river enters the State of Louisiana in its northwest corner, where it adjoins the State of Arkansas, about eighteen miles from the west boundary of the State, and runs nearly due south, in its main course, between the parishes of Caddo and Bossier. Except an insignificant area in the extreme northwest corner of the latter parish, and a much more considerable area along the southwest, south and southeast border, this parish has virtually all its alluvial lands. On the west bank of the river, a long, narrow strip of the bottom or valley of this river constitutes "Alluvial Lands," most of the bottom being almost entirely on the Caddo side, west of the river, for nearly twenty-five miles after it enters the north side of the State. At Shreveport, or near by, the river sharply trends southeast, and the "Good Uplands" come prominently forward there, for a little way of the river's course, throwing the bottom into Bossier on the upper side; and this happens at several points above Shreveport (although the hills do not come so near the river), with a corresponding result, on the opposite area, in Bossier parish, of widening the bottom in the latter parish. Both Caddo and Bossier are long, narrow parishes, from fifty to sixty miles long, and, in no place, over about twenty wide. Their lands are entirely in Lockett's division of the "Good Uplands" and "Alluvial Lands," and this fact constitutes them an area of remakable fine lands; for it may as well be said here, as anywhere, that the lands of the Red river valley are of superb quality, and the Western stock-raiser and grass-grower will be delighted to learn that red clover flourishes on them as though it were indigenous. From Shreveport, the reader bears in mind that the river trends southeast, on its way to the Mississippi. Leaving Bossier and Caddo, it flows through the parish of Red river, making a thin strip of "Alluvial Lands," in its bottom along its west side border, in DeSoto parish; but much of the force of its valley is in Red river parish. Its valley, in this parish, is about ten miles wide, in the main, by about twenty-four long, and containing about as much "Alluvial Lands." In Red river parish its bulk of bottom south of the stream, as Bossier and some less than Caddo Of both DeSoto and Red river parishes may be said that their entire area are in the classification of the "Good Uplands" and the "Alluvial Lands." The valley of Red river, in the parish of that name, is on Red its entire west, southwest and south border. From this last parish the river enters the parish of Natchitoches, and courses through the entire parish, giving *all* its bottom to the parish. Counting only its air-line

distance, as a crow should fly, and not regarding bends, from the point where it enters in the northwest corner of the parish to the point where it departs, on the southwest, it will be found to traverse, more or less, ten townships; and we suppose that, estimating its distance around bends, there must be a mileage considerably in excess of the breadth of the townships. In one place in Upper Natchitoches, its bottom must be twenty or more miles wide, and, nowhere in the parish is it less than eighth to ten miles in width. The bottom varies in width along the course of the river, now wider on this side, than on that, back and forth. Thus, this whole parish has a fine area of this grand Red river "Alluvial Lands." And, an area, Cane river, subordinately, has one of the loveliest-looking country, in some respects, ever seen. The southwest fourth part, thereabouts, and an area in the northeast part of the parish, are in the "Pine Hills" belt, as has been previously noted.

Leaving Natchitoches parish, the Red river enters Grant parish, at its county seat, Colfax, and throws into this parish a little area of its bottom, making, in the extreme southwestern corner, a piece of "Alluvial Lands" about the equivalent of two townships in size. All the rest of this parish is in the belt known as the "Pine Hills," except a thread of territory about fifteen miles long, on the bottom of Little river, on the east side of the parish. This is "Alluvial Lands," and it is, approximately, from one-half to three miles wide. After its short run in Grant parish, Red river takes a long run through Rapides parish. The river bottom is here skirted on either side by the "Pine Woods" belt, as in all of Grant and southern Natchitoches parishes, and the river hugs the pine woods on its northern side to some distance below Alexandria—the county seat—making a narrow skirt of bottom on its north side, and throwing the main width of "Alluvial Lands" on the south side of the stream. This belt is about two townships (twelve miles) wide in Rapides parish, and prevails through about five townships in length, making fifty miles or more around bends. In this parish, the Bayou Bœuf makes, by its bottom, a very fine character of "Alluvial Lands," and adds to the area above allotted to the Red river valley, a considerable body of soil very like the Red river valley lands, and which is a fine sugar land. About twenty-five miles below Alexandria, Red river turns sharply to the north, at a point about half way down the west boundary of Avoyelles parish (the east boundary of Rapides), and then "snakes" its way northeast, in northwest Avoyelles, and makes a devious boundary between this parish and Catahoula; the latter here due north of the former. Almost the whole of Avoyelles parish is in the belt of "Alluvial Lands" and the "wooded swamps," the former a correlative of the latter, by reason of various bottoms of several bayous, and also another section of bottom, on the east side of the parish of Red river; this river marking its east boundary, and there running south. The south line of Catahoula parish is in the "Alluvial Lands" belt, by reason of being in the Red river bottom there, and also by reason of being in the bottoms of the Tensas and other bottoms. These areas of bottom lands constitute a rim of land all along east Catahoula, and a heavy body in the south and southwest of the parish of "Alluvial Lands." Soon after leaving Avoyelles parish, the Red river empties into the Mississippi river in Pointe Coupee parish, and this we have denoted in our matter on the "Alluvial Lands" district of the latter river.

The Ouachita river and its tributaries constitute the next large area of "Alluvial Lands" of the State. At Trinity, in Catahoula parish, the Tensas and Ouachita rivers join and constitute the Black river—the latter running down as the boundary between Concordia and Catahoula parishes, and joining the Red river where the latter courses past across

the south boundary of Catahoula. At Trinity, the Tensas runs northeast, and makes the boundary between this parish and the parishes of Concordia and Tensas, for a part of its course; and makes a long, narrow strip of 'Alluvial Lands," on its bottom in Catahoula parish, from Trinity up to the north line of the parish. From Trinity, the Ouachita runs north, past Harrisonburgh—the parish seat—where the areas, known in our classification as the "Good Uplands" and "Bluff Lands," approach the river and narrow its bottom greatly, and it deflects still more northwest, after escaping the environments of the hills of these two grand topographical divisions. A little before the encroachment of the hills, just alluded to, the Bœuf river (to be distinguished from Bayou Bœuf) enters the Ouachita. Above the junction, the Bœuf river and Ouachita run nearly parallel, gradually diverging, and both flowing, approximately, from the northwest, for a distance, until the Bœuf trends northeast. The bottoms of these streams constitute a considerable body of the "Alluvial Lands" of Caldwell parish, and nearly half its eastern area; a long, narrow neck of "Good Uplands," projecting north and south through the whole parish, and separating the "Alluvial Lands" from the "Pine Hill," which last traverse the whole west side of the parish, north and south, as the "Alluvial Lands" do on the east side.

Near Columbia, the parish seat of Caldwell parish, the bayou Lafourche (there is a stream of the same name in Lafourche parish, in the southern part of the State) makes a junction with the Ouachita river Both flow through Ouachita parish, north of Caldwell. These streams and the bayou Bœuf river, nine or ten miles east of Bayou Lafourche, make, with their bottoms, a solid area of "Alluvial Lands" across the southwest corner of Ouachita parish. An oval-shaped area of the "Good Uplands" comes down from Northeast Ouachita, well down to its south boundary, on the east side of the parish. This protrusion of hill lands separates the common bottom prevailing in the south of the parish, and divides the streams for all the balance of the parish. Going north, we find a long, narrow belt on the east side of the ridge of "Good Uplands," which is the bottom of the Lafourche. On the west side of the ridge is found the bottom of the Ouachita river, making, through Central Ouachita, north and south, a belt of "Alluvial Lands," about half a township wide, except where an arm is projected east; the bottom of the bayou Lanniere. The Ouachita flows on past Monroe—the parish seat of Ouachita—and is found coming down from Arkansas through Union parish, and making the east boundary between this parish and that of Morehouse. Before entering the former (say seven miles) a prong is thrown off northwest, meandering from northwest of Farmersville, the parish seat of Union. This is the bayou d'Arbonne. Its bottom, from its body (as traced on the map), from Central Union parish to its junction with the Ouachita, in North Central Ouachita parish, is about twenty-four miles long, and from two to four miles wide, constituting a long, narrow strip of "Alluvial Lands." A few miles north of the junction just alluded to, the bayou Loutre runs down from Southeast Union parish and enters the Ouachita, making a triangular area of bottom, with the point in Union, the base in Northeast Ouachita parish. This portion of "Alluvial Lands," in both parishes, constitutes about the equivalent of a township in area. The Ouachita bottom, in East Union parish, is about thirty miles long, and from two to six or eight miles wide, adding to the parish that much "Alluvial Lands." In West Morehouse the bottom of Ouachita is wider, say from four to eight miles, and about twenty-four long. And the bayou Bartholomew, running southwest from Arkansas into the Ouachita river,

from Northeast Morehouse, clear across the parish, adds another narrow strip of "Alluvial Lands," say thirty miles long, and three to twelve miles (with the bottoms of subordinate streams joining the Bartholmew from the north), wide. Coming to bayou Lafourche and Bœuf river, we find them both making a body of solid bottom—"Alluvial Lands"—along all west Richland parish, from its north to south lines, about thirty-five miles, and from three to nine wide. The Bayou Lafourche forks in in northwest Richland parish and southeast Morehouse. Its northeast fork becomes, for some distance, the boundary between the parishes—the southern of the former, the northern boundary of the latter. Its west or north fork—as you please—is little Bayou Bœuf—not Bœuf river—and is the boundary between Morehouse parish southwest and west for a part of the way, and Ouachita northeast and partly north. The northeast fork and the Bœuf river—some miles further east—make a common body or belt of the "Alluvial Lands," for quite a distance, in east Morehouse. Then the river Bœuf and the bayou Bonne Idee form a body. A few miles north, the latter flows through a belt of "Good Uplands" (a large body coming down from north Morehouse well south, and constituting a large portion of its central area), and then the Bœuf river bottom constitutes the balance of the "Alluvial Lands" on the east side of the parish, clear to the north border. This Bœuf river, for nearly all the distance where West Carroll, on its west side, adjoins Morehouse parish on its east side, is the boundary between these parishes; and it makes a bottom and a belt of "Alluvial Lands" in east Morehouse and West Carroll. The body of "Alluvial Lands" in east Morehouse is an unbroken belt, stretching clear along the east boundary of the parish, from the north to the south lines, through more than six townships, of variant widths, from a mile or two, in its extreme southwest area, to twelve or more in the widest part. In West Carroll, the Bœuf river bottom constitutes a belt of "Alluvial Lands," along all the west border from south to north, until the "Bluff Lands" come to the river in a limited area of the northwest corner, and eliminate the former quality of lands. In west West Carroll, this "Alluvial Lands" belt stretches from the south line north, through about three townships, and is from one or two, to six or more miles wide.

Going over, now, to the extreme west side of the State, we find the Sabine river making a long, narrow belt of the "Alluvial Lands." From a little north of Logansport, and a little above latitude 32 degrees, the Sabine river is the boundary between the States of Louisiana and Texas. It runs through eleven or twelve townships southeast, then bends sharply south two townships or more; then trends about south, southwest twelve townships, and then southwest, two or more townships. It traverses about two and a half degrees of latitude, in covering the west side of the State. It makes a narrow fringe of bottom in Louisiana, constituting a mere rim of "Alluvial Lands," never so wide as a township, and varying from two to five miles in width. Beginning a little above Logansport, in southwest DeSoto, and coming south or southerly, it gives a ribbon of "Alluvial Lands" there. It flows past all west Sabine, past all west Vernon, past all west Calcasieu, past all west Cameron parishes, and is lost in the Gulf of Mexico, at Sabine Pass, in the extreme southwest corner of this parish and of the State of Louisiana.

In southwest Calcasieu, the "Coast Marsh" makes a neck of land into and west of the "Prairies," and the classification of the bottom of the Sabine falls as "Alluvial Lands," and is put into the category of "Coast Marsh," which denomination it holds to the Gulf of Mexico.

Thus, we have tried to give some idea of the localities and extent of

the "Alluvial Lands" of Louisiana, as located on Lockett's topographical map of the State. But the reader must not believe that these are any more than only *approximate*. Every brook and stream has more or less bottom, consequently more or less "Alluvial Lands." These brooks and creeks are innumerable; as North and Central Louisiana are fairly veined with them; and, owing to our rainfall being so great, and so well distributed throughout the year; owing to our abundant springs, and shaded bottoms, preventing rapid evaporation: owing to our atmosphere containing such a degree of moisture as to prevent that rapid absorption as is so marked in very dry climates, our streams are abiding in their flow (mainly), and are not freshet streams; now bank-full and then bed-dry, as is the case in many localities. Then, the *depth* of our streams is something wonderful; often a narrow, insignificant-looking bayou (in point of width), has a depth, even in dry weather and lowest water, that astonishes the uninformed. Twenty feet depth is not uncommon, and sometimes thirty or more is found in a narrow stream that average conjecture would guess to be only five or six feet deep. It is a most forcible illustration of our wealth and inexhaustibleness of water, and giving potent hints to the stock-raiser and those seeking water powers. And, the navigability of many of our streams is full of promise, when the future towns shall need them. The Ouachita, for illustration, is navigable, at times, up into Arkansas.

Next, we take up Lockett's classification succeeding the category of "Alluvial Lands"—that of "Wooded Swamps." We have endeavored to prepare the reader's mind for certain explanations, by saying, incidentally, that the "Alluvial Lands" is a correlative of the "Wooded Swamps." Once, the "Alluvial Lands" were "Wooded Swamps." The accroachments of agriculture have wrested from the forests and swamps much of the land in the category of "Wooded Swamps," and have placed it in that of "Alluvial Lands." As population comes in; as the forests are cleared and drained, the "Wooded Swamps" disappear, and the "Alluvial Lands" obtain. Settling on the edge of the stream at first, the agriculturist hewed his plantation or farm out of the forest. As the land, at and near the bank of the river, is generally higher than back, the land was cleared near the river, and the lower land back (especially if prone to overflow badly or cut with sloughs—"slues," in common parlance,—or covered in spots with ponds), left to the forest. This was, and is called "swamp." But, the term (in the main) is misleading; and nothing is more common than to find one man with a "swamp" near the stream back of his arable land, while his neighbor has arable land away back of his neighbor's "swamp." The only difference is, that the former has not cleared his "swamp" (which is only forest), while the latter has. We have ridden for miles through "swamps" back of plantations, where there is no difference between it and the river front, except that, from the latter, the trees have been cut and the stumps removed, while the former is wooded; and, with the further exception, that the uncleared land, being virgin soil, is even more fertile than the cleared land wrested from the "swamp" twenty, thirty, fifty, maybe a hundred, years before. Let the reader, therefore, not become possessed of the idea that the "swamp" is a bog or morass. There is but little such land in the State. There are few "swamps" that are not readily reclaimable. They are (mainly) hard, firm soil, and only need sunlight and deforestation to make them the equals, and even superiors, of the cleared land, on the river's or stream's front. From the above, it may be seen that the terms of Professor Lockett's map are measurably misleading; for much land once "Swamp Lands" is now, in fact, "Alluvial Lands;" and the area of the latter is constantly enlarging,

while that of the former is constantly decreasing. And then, as an illustration of the truth of our delineation, and of the results of the late war, and its consequently crippled agriculture, some of the noblest plantations, where, under the old *regimé* superb crops of cotton, sugar cane, etc., were once raised, have reverted to forests for much of their areas; and are, to-day, under the false and misleading nomenclature of the localities, denominated "swamps"—a most vicious or pernicious provincialism. So, even in his day, Professor Lockett's topographical map was only meant to be *approximate*. He could not give *all* the localities where the trees he allots to the "Wooded Swamps" category are to be found. Many, and even all, of the same trees grew elsewhere. He only meant to delineate the *predominant growth*, and where it obtained in force. It would be a task of years to revise his work. We can only vagnely follow him, and point out (mainly, only, too,) the localities he delineates. But, the reader must only estimate our work as a *clue*. Let him not rely upon it as an *assurance*. For it must not be lost sight of, that there are scores of saw mills in this State cutting cypress alone, and that they are cutting all sorts of lumber; that millions of cross-ties, and much bridge timber are being hewed, or have been; that speculators have bought much; that an army of workers are in the cypress-annihilating industries; and that tens of thousands of acres have been cut over, and the trees removed. We now proceed to quote Professor Lockett's description of these "Wooded Swamps:" "Subjected to deep overflow; not arable. Intersected by lakes, bayons and sloughs. Forest: Willow, cypress, tupola, gums. Product: Cypress, timber. Area, 4,300 square miles. Area of water surface, 4,700 square miles." When it is said that the above land is not "arable" and "subject to deep overflow," it is meant (as we take it), to apply to their *then* conditions. Land in forest is not, *as* forest, arable; but this does not mean that it may not *become* arable, by being *cleared*. And, it is certain that, more or less land that was, at the time the topographical map was constructed, "Wooded Swamps," is now in cultivation, having been cleared. And the phrase, "subject to deep overflow," requires explanation and qualification. This topographical map was published in the year 1872. Then, many of the levees (especially along the Mississippi river), were down, or in wretched repair, and the "Alluvial Lands," as well as the "Wooded Swamps," were "subject to overflow," because of the high waters of that river; and then, that language, in exactitude, was applicable to both. But, since then, the levees have been rebuilt and improved, and it is now claimed that the country naturally "subject to deep overflow," by high water in the Mississippi river, is safe from overflow, in the main; especially that inhabited or subjected to the plow. Of course, if the higher land along the river was liable (or subject) to overflow, the "Wooded Swamps" back were subject to still deeper overflow. And, if the high land there is not subject to overflow now, by reason of the perfection of the levees, the lower lands back, or "Wooded Swamps," are not *because these cannot, in many cases, be overflowed, but from the front.* Of course, it is not meant that there are not many "Wooded Swamps" now, that are not "subject to deep overflow," because many streams are not leveed; but, in many "subject to this deep overflow," the water runs down in a few hours, or a day or two; being only overflowed by freshets from rains; and this does not prevent these areas from being put in grass, for stock-raising, or even cultivated crops; and there are many such areas (cleared now), where the latter state of affairs exists. And here we would emphasize the fact that many of these "Wooded Swamps" would make the finest of all possible stock-ranges or pastures, if put in Kentucky blue grass,

white clover, etc., and are, in point of fact, very fine now, as "switch cane" is abundant in many, if not most, of them.

With the above explanations, we proceed to locate various areas of the "Wooded Swamps," as Professor Lockett terms them. We are much aided by the following communication from an eminent authority on the matter in question. It is invaluable, because it gives the newest or latest status of affairs, and from one of the most authoritative experts of the State, or even the South:

"The prevalent belief as to the unlimited area of swamps and timbered swamp lands within the State of Louisiana, is of the most exaggerated type. The prejudices which have existed for years in the minds of the people in the uplands, as to the State of Louisiana being one-half marsh or swamps, is one of those ignorancies which more naturally belong to the dark ages and the unlettered people. It is not my purpose to refer to the uplands, nor the high alluvial lands of Louisiana, but to confine my statements entirely to the swamps and the cypress brakes. The map which was issued by Lockett, of the State of Louisiana, very clearly indicates and specifies the various differences in character of the lands and timber of Louisiana. Apparently, these map indications by Lockett cover an immense area, and correctly so. But since 1880 there have been decided natural and artificial means employed and, literally, at work reclaiming an enormous portion of this vast, classified "wooded swamps," and it will be no rash, but a broad assertion to state that over one-fourth of the "wooded swamps" area of Louisiana has been restored to what might, by courtesy, be called "Highland Swamps." We have simply to refer to the closing of the vast crevasses which deluged the parishes of East and West Carroll; parts of Morehouse, Madison, Tensas, Concordia; parts of Richland, Franklin, Catahoula, Pointe Coupee, Avoyelles; parts of Iberville, Assumption, Terrebonne, Jefferson, Plaquemines, on the west bank of the Mississippi river and on the east bank; the volumes of flood which filled all the swamps in St. John Baptiste, St. Charles; part of St. James and Livingston parishes, since the levee system was inaugurated, and which has been regularly and systematically enlarged and strengthened. These rich lands, in the parishes above referred to, and which have, for years, been classified as "wooded swamps," or overflowed, have been brought back to the standard of hard-wood timber and rich alluvial lands. And, to-day, we see lands yielding their fine crops of corn, and cotton, and hay, where a few years ago boatmen in their pirogues and skiffs paddled from mound to mound, carrying provender for imperiled live stock. And the vast area of *swamp* and *overflowed* lands have been reduced to the narrow compass of the lowlands, marshes and cypress brakes lying in South Louisiana, south of the Southern Pacific Railroad, and extending to the Gulf, and along the great lakes to the northeast of New Orleans, and along the edges of the waterways of Central and North Louisiana. It was my experience, a few months past, to inspect a cypress swamp in the parishes of St. John Baptiste and St. James, which, several years since, was denominated "a shaking, bottomless swamp." I discovered that, by the slow, yet sure, law of deposits and accretions, the Bonnet Carré Crevasse had left, from its flood of waters, a "*mud* and *material*" deposit of more than four feet deep. This swamp is down on the maps and in the handbooks as "worthless, valueless for agriculture;" and yet, I venture, when the timber standing has been removed, this swamp will be looked upon and sought after by the shrewd, far-seeing "cabbage grower," as the choicest bit of land in all the fair bosom of Louisiana's alluvial basin. This is no exaggerated statement. A visit to the section of country in the swamps around Frenier,

on the Illinois Central Railroad, will afford the proof. The supply of cypress timber in the State of Louisiana is fast being brought to its limit Even now, we find the lumberman and the logger are forced, from necessity, to the "cable" process to draw logs from the outer limits of the depleted swamps into the water for floating, and in some sections it is necessary to construct tram-roads for several miles into the swamps, in order to reach the cypress. For years, the Louisiana swamps have been called upon to meet the demands for cooperage to market her great sugar and molasses crops; to supply crossties for the network of railways covering Texas and her own borders, and reaching out to the mountain-hearted land of the Montezumas; and to supply the tank-maker, the architect, the boat builder and the shingle maker with material to satisfy their demands. And all of these demands have been met with tremendous strain and tension by the cypress brake. Is it a wonder that we, to-day, realize that our cypress brakes are fast disappearing? That their value has not been appreciated? And that we must husband or economize, or we must, at an early period, have to draw on other States to supply our wants in cypress—at prices ten times greater than we sold our own cypress for?

There is another class of *swampy lands* which have, during the last few years, undergone most remarkable change in value. I refer to the low prairies of South and Southwest Louisiana. These broad acres, which for generations past, have been the home of the alligator, the wood fowl, and of solitude, are fast yielding to the influences of the "ditch and the drainage" and now, the farmer sows his rice and reaps his crop: and I predict, before another decade, the railroad will cross the lands where legend, tradition and prejudice have, for ages, proclaimed to the world, "A bottomless, shaking, trembling prairie." The world moves on—why should Louisiana stand still?

"W. H. Howcott."

It would be worse than useless to enlarge upon Mr. Howcott's letter, and to attempt a particularization of *all* the localities where cypress is to be found, or even to define all the localities of the "Wooded Swamps." In almost every instance, these are on every stream in the State; and the streams are almost numberless.

The delta of the Mississippi, on *all* streams, is, or rather, has been a great country for cypress. And, after Dr. Joseph Jones' definition of the delta, we will not re-describe it, but say, in general terms, from the Atchafalaya bottoms to the hills beyond the Teche, the Mermenteau, Plaquemine, Nez-Pique, Vermilion, Que de Tortue, Calcasieu (and subordinate streams), are good cypress localities. The bayou Macon, Bœuf river, bayou Lafourche, Ouachita river, bayou Dauchite and portions of Red river are strong in cypress.

But, after all this particularization, let not the reader be misled. Let him remember that millions of acres have been bought; that cross-ties, bridge-timber, piles, fencing, shingles and numberless mills have absorbed, and are absorbing this timber. Its uses are growing all the while, and its appreciation is very rapid in public regard. And then, much cypress is not accessible, although it may be superb in quantity and quality. It is worth $8 to $10 per 100, in the log, at the mill.

The "Wooded Swamps" are often very rich in hard woods. Oaks, hickories (many species), ash, etc., are superb.

The last division on Prof. Lockett's map, is the "Coast Marsh," and almost uninhabited. The "Coast Marsh" is, at present, almost out of consideration for the agriculturist or capitalist. Prof. Lockett thus describes it on the topographical map in question: "Subject to tidal overflow; not passable. Intersected by bayous, lakes and trembling prai-

ries, with islands of live oaks, covered with tall, rank grass. Products: Fish, game, rice, oranges, bananas, figs on islands. Area, 5,200 square miles. Salt water surface, about 2,000 square miles."

This area is out of consideration for the agriculturist, because not reclaimed; out of consideration for the capitalist (meaning thereby the speculator), because a great deal has been purchased, at least, in its western area. Mr. J. B. Watkins, of Lake Charles, La. (headquarters), though living in Kansas, purchased, at a stroke, over one million acres of it. We understand his purchase to include about all the "Coast Marsh" in Vermilion parish, and in Cameron, to Lake Calcasieu, further west. West of that lake, a few gentlemen residing west of Lake Charles, own much, if not all the balance, of this "Coast Marsh," in the southwest corner of Louisiana, clear, or near to Sabine Pass. On the eastern part of this body of land, a large tract is owned by a company having its domicile in New Orleans.

Between New Orleans and Mobile ("along the coast"), clubs of sportsmen of the former city, own more or less, and have club-houses there where they shoot and fish. This "Coast Marsh" is one of the finest winter cattle ranges on the continent. The soil is incredibly rich, made so by its many factors of fertility, such as marine shells, dead fish, salt from overflows of the Gulf of Mexico, the humus from the rank, decayed grass of unnumbered ages, and by the *excreta* of countless aquatic fowl that have been its resort for centuries. This last element of fertility puts the soil in the category of a quality like the guano of the Lobos Islands of Peru. Col. M. B. Hillyard visited this spot and wrote it up in the columns of the *Times-Democrat*, and we shall give some of his descriptions hereafter. By burning this tall grass after it has been frost struck, room is given for the young grass to grow, which it does all winter.

Besides the tall, rank grass, there is other food which the cattle are fond of—flag, water-parsely, etc. Some day this front of the sea marsh will be valuable as grounds for oyster-planting, fish-taking, terrapin-nurseries, etc. In Delaware, Maryland and Virginia, oyster-beds are very valuable. From them is furnished work for a thousand or more vessels ("oyster boats," in the parlance of the oystermen), and thousands of employes (of both sexes) find employment in "shucking" and packing this choice shell fish; and even towns are built away out into the shallow sounds, in some localities, with oyster shells as foundations. The shores of our Gulf are just beginning to feel the impulse of oyster and shrimp-canning, and scores of these canneries will spring into existence in the near future. Then the localities, where the finest oysters can be raised or "grown," will be very valuable, and water-fronts will be in demand. Then, too, fish-packing, "fish-guano" factories, fish-oil establishments, etc., will some day be great industries; and good seining grounds accessible must be had. It is not generally known that we have in the Gulf of Mexico the genuine "Diamond-back" of the waters of the Delaware and Chesapeake bays. Retail, these terrapins sell, by the dozen ("counts"), for from ten to fifteen dollars, and larger ones as high as thirty dollars, in winter, per dozen. Every habitué of those renowned *restaurateurs*, Welcker, of Washington, D. C., and Delmonico, of New York, knows what a plate of "Diamond-back" is, and also what a plate *costs!!*? So far as we know, there are only two terrapin farms in the United States—that is for this species,—one on the eastern shore of Maryland, and the other on Mobile bay (in Alabama). The shallow bays, inlets, etc., afford most admirable chances for raising this crustacean along our Gulf front. It is a matter of course that, by twenty-five years from now, will be started two or three cities between New Orleans and Galveston. In all

human probability, one of them will be on Vermilion bay Deep water can be had there. It can be made a superb harbor. No reason why it should not be made a great winter city. There, will be prodigious canneries of fish, crab, shrimp, oysters, etc., and cognate industries or those dependent. At points on the Gulf coast, between the southwest pass of the Mississippi river and Sabine Pass, there is a superb surf; and summer cities will surely spring up, resorted to by parties who seek bathing, sea breeze, fishing, shooting, sailing, etc. At this date, a large hotel is being built at Grand Isle, as a summer hotel for those who seek the above-mentioned attractions. And a railroad is projected to that point, to accommodate travel there. It has been long noted for its superb surf.

We ought not to fail to say a few words about the splendid shooting in the "Coast Marsh" area. There, are more or less deer. But, wild duck, wild geese, and brant swarm there in myriads, in winter. The locality is one of the great winter *habitats* of the migratory fowls above named, that, forsaking the frozen regions of the West at that season, seek the locality in question. No adequate idea can be conveyed of the teeming millions of these aquatic fowl that darken the air in flight, and fairly cover the waters of this coast marsh. But, wild duck are found, both summer and winter there and elsewhere in the State. Their flesh is delicious; and many "pot-hunters" earn a livelihood in killing them. And in speaking of game, it ought to be said that no State in the Union at all compares with Louisiana in abundance and variety. Deer, wild turkey, woodcock, jack-snipe, wild duck and geese are plentiful. In localities, wolves and black bear are numerous. Quail, rabbits and squirrels are abundant almost everywhere, a little away from thick settlement. Prairie chickens are in goodly numbers on the southwestern prairies. Papabotes (plovers, two species), swarm in early spring and August there, and they are far superior in quality to the jack-snipe. Wild cats are easily found. Opossums and coons are almost a staple food for the colored people, in wooded areas, in winter. Robins are in great numbers in spring, and doves and wild pigeons are in strong force. Many people trap; and otters and minks are to be found on almost all streams where population has not cleared them out.

Within the next fifty years, this "Coast Marsh" will probably be dyked and in cultivation. Its soil is superior, we think (if possible), to the "Alluvial Lands" of the Mississippi bottom, as there enter into its composition more constituents of fertility. The potash, phosphates, vegetable humus, lime (from shells), and ammonia (fixed), are astounding. As to the feasibility of reclaiming this area, there can be no doubt. Leaving entirely out of account the stupendous difficulties and triumphs of dyking Holland, the coast marshes (once), of our own country furnish abundant illustrations. The shores of the Delaware river, in many places, are illustrations. And Delaware, Maryland, New Jersey and Eastern Virginia, show plentiful territory wrested from sea or bay, as the case may be; and where the "wild waves" played once, children now sport, and all crops possible to climate grow.

We now give an extract from a letter from the pen of Col. M. B. Hillyard, who visited the coast marsh under the auspices of Mr. J. B. Watkins, the chief of the English syndicate which bought such a large area of this sort of land from the State of Louisiana. The former gentleman gave quite an exploration of the area. The extract below is taken from *The Times-Democrat* of New Orleans. It is dated Lake Charles, Louisiana, April 2, 1886:

"But what a country for the sportsman! Papabotes, jack-snipe, wild duck without number. Had I brought gun and ammunition along,

as poor a shot as I am, I could have almost loaded my boat with mallard and teal; for one could pull softly along the canal, step up the bank behind the levee, and get shots at swarms of these ducks from ten to fifty yards distant, in the numerous lakes. Even the geese had not yet all gone, and the men told me these wintered there in myriads. But Southern and Western Louisiana is a sportsman's paradise, and ought to have even a greater reputation than it has.

The fertility of much of the soil in the marsh is almost beyond belief. Where they are dredging it was as black as tar, and greasy and slippery to the touch. How much deeper it was, no one could tell. In parts of the embankment, nothing could be seen but this rich alluvion. In parts of the marsh, there is a capping of decayed vegetable matter, of a depth of one to three feet, and then a greasy, greenish, yellow clay, with more or less "buckshot" in it. Very frequently there is considerable shell mixed with the substratum. The soil is very cretaceous, as can be seen by its cleavage—very similar to that of the rotten limestone of East Mississippi, more particularly. But aside from analysis—of which I know nothing—all conditions show that this soil must be rich, for there are deposited dead crustacea; shoals of fish have decayed there; the rank vegetation of ages has rotted there; wild fowl, feeding on fish, have deposited their excrement there through all the centuries, and this last element of fertility is the predominant one of Peruvian guano.

It is in this sea marsh belt (as contradistinguished from the enclosed, or prairie belt), that the syndicate propose to winter their cattle. In summer, the flies and mosquitoes are deemed too troublesome. The canals will give them a dryer foot, and as the waters recede, grasses will be seeded. Bermuda, to our surprise, has got more or less foothold, and Timothy, meadow-fescue and Herds Grass will undoubtedly luxuriate in many spots now."

We now procced to give some *data* with reference to one and another topic.

The following are from proceedings of a

CONVENTION OF NORTHERN-RAISED MEN,

held in New Orleans last summer, for the purpose of giving their views of their adopted home, Louisiana:

Prof. Knapp, as chairman of the convention, rose and introduced Chief Justice Edward Bermudez, in the following words:

Ladies and Gentlemen of the Convention:

I have the pleasure to introduce to you, for an address of welcome, Chief Justice Edward Bermudez, to represent the judiciary of Louisiana.

ADDRESS OF WELCOME BY CHIEF JUSTICE EDWARD BERMUDEZ.

Mr. Chairman and Gentlemen of the Convention:

The chairman has announced me as a representative of the Judiciary on this occasion. This is a slight mistake. I appear in no official capacity whatever. I come as a private individual to make a few remarks on this occasion, and I do it as the equal of every one here, the superior of none (applause). I come simply as a citizen of Louisiana, who has at stake the good of his State, and will not detain you long. The address I have prepared for you, I have made read as a judgment.

The promoters of this convention have met for the purpose of taking such steps as may effectually stimulate immigration, specially from the West and North. They are men of broad minds, of stout hearts, practical business capacity, who, made aware of the advantages to be derived in agricultural pursuits in the State, came to judge for themselves of her

climate and salubrity and the fertility of her soil. After an experimentation of a number of years, they have announced themselves amply satisfied and rewarded, and have settled permanently within her borders.

THIS IS NO POLITICAL ASSEMBLAGE.

Men generally congregate to avert a common danger or to promote a common good. Seldom do they meet to accomplish a purpose, which, when realized, inures exclusively to the benefit of others. Still such seems to be the main object of those who have come together on this occasion.

They have assembled to bear testimony to establish facts which will induce others to follow in their footsteps, that they may reap advantages similar to those which they have themselves realized.

They will announce in appropriate form the general resources and wealth of the State, and give the moral assurance to all who may trust them, that should they immigrate and settle here, under proper circumstances, and with the proper spirit and energy, their fondest aspirations will not be blasted, but on the contrary, will be fully realized.

Joining them, the citizens of the State offer to immigrants a large quantity of excellent and cheap lands, much superior to those in other States at like rates, scattered throughout the State, in its most fertile regions, well timbered, fairly roaded, and susceptible, by proper cultivation, of producing almost

EVERYTHING NECESSARY AND USEFUL

for their welfare and prosperity, and this with little or no pains, with hardly any capital except the indispensable outlay to start with, and to have matters and things to move in the right direction.

They offer to them a temperate climate, free from blizzards in winter, although trying at times, but usually bearable in summer; a country as healthy, perhaps healthier, than any other similarly situated. Of course, people will die here from diseases, as they do anywhere, but many live to quite advanced age. The mass is not afflicted with those extraordinary maladies which occasionally prey like scourges on doomed localities.

Yellow fever once prevailing here, locally, and not as a general thing, has not made its appearance for many years, owing in part to wise sanitary precautions, and to the scattering of the populations of cities. From all indications, this dreaded curse will never more show its hideous form, or if it does, it should not alarm settlers or planters in the rural portions of the State beyond its reach.

WE OFFER TO IMMIGRANTS

a law-abiding people, honest, charitable and chivalrous, ever ready to lend a helping hand to all needing and deserving assistance.

We offer them the assurance that our people, as a body, is a moral people, reverencing religious principles, encouraging the development of morality and education, convinced (however much they may diverge on certain subjects on those matters), that honesty is the best policy, and that in their intercourse men must be controlled by the wise maxim: "Do unto others that which you wish others to do unto you."

Others better informed on those topics, and who will follow, will adduce satisfactory proof that we have well regulated free schools and numerous churches, both of easy access; that others are daily put up and maintained whenever the need of growing population requires, all over the State, and at which all can learn much more than the rudiments of knowledge and the fundamental principles on which morality and religion must rest.

They will also show that justice is administered by courts in which

the rights of life, liberty, property and the pursuits of happiness are recognized and enforced under a system of legislation which is at least equal, if not superior to any other.

In exchange, all that is expected is that those to whom those friendly and advantageous offers are extended, and who may accept them, shall be upright, energetic, enterprising and public spirited men.

Of Louisiana, as of Naples, it may be well said that it is a fragment of heaven fallen on to earth. Indeed, the soil of Louisiana is such that, tickled with a hoe, it smiles into harvest. [Applause.]

Let such then come to us; let them see and judge for themselves of the sincerity of our representations; let them settle among us, exert themselves as they ought to, and they may rest assured that their undertaking, in no way hazardous, will be fully crowned with success, and that all will mingle fraternally; and, with the blessing of Providence, enhance mightily the common good; the prosperity and the greatness of a common beloved State. To all we tender a hearty welcome. [Great applause.]

President Knapp then introduced

COL. JOSEPH A. BREAUX

State Superintendent of Public Education, who said:

* * * * * * * * * *

The public school system is not as useful as it should be. In certain localities it is not useful at all. We are pleased to greet you. You will aid the large and influential number in our State who consider the common school system as a great factor in American civilization. The influence of this large and influential number prevailed during the session of the General Assembly held this year. The school laws were remodelled. The revenues were increased; not sufficiently, it must be regrettingly admitted. The restrictions in the organic law prevent such an increase as is needed. Why these restrictions were in the State Constitution adopted in 1879, it is uselesss to discuss. There are restrictions upon education, and for the time being they must be obeyed. In the law lately adopted, provision is made to increase the revenues for schools in the parishes. The *minimum* of taxation levied in the parishes heretofore was generally one mill.

Under the present law, it should be one and a half mills, and may be as many mills in addition, as the Police Juries see proper to appropriate.

This is a local tax. In addition to the State apportionment for the support of schools, there is a poll tax and the free school interest tax.

In parishes in which there is a healthy public opinion regarding schools, an increase in revenues from this local tax will be obtained.

Where there is no great love for the school law, and where mandatory provisions in this connection are as naught, and where the feeling is one of indifference to popular education, and there exists no sympathy for those who are anxiously seeking to escape being classed among the children of darkness and illiteracy, this provision of the law will not accomplish much.

Immigration should be favored. It is of the utmost importance.

An intelligent immigrant in search of a home (by the way, most immigrants are intelligent; generally the dullard does not immigrate), will not fail to enquire about the schools.

He well knows that in most communities where the schools are entirely neglected; where the schools do not inspire the least interest, there are not many citizens prominent, because of their excellent qualities and good traits.

The schools epitomize the State. They reflect the excellence of the community.

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The present generation in Louisiana is not discharging its debt, in so far as relates to the common schools. This debt should no longer be overlooked or neglected.

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The Legislature has provided for holding Institutes, State and local. The former is in charge of the State Normal School at Natchitoches. The latter is left to the management of parish superintendents. There are two Normal Schools in the State. The one just mentioned, and another in New Orleans. The latter is mostly, if not entirely, local; with time, it will doubtless, extend its usefulness.

There is a University in New Orleans. The Tulane, to which I refer, because it has received considerable aid from the State. My object being at this time to limit my remarks to institutions under its control, I will not refer to all its departments, but I will mention that it has a literary, also a technical and mechanical department. There are a number of students in this department. The management is excellent. It is receiving the appreciation it deserves. There is also a university for colored students: The Southern University. It is endowed by the State, and receives consideration and attention on the part of those in authority. There is an institution of learning in Baton Rouge, the Louisiana State University and Agricultural and Mechanical College. Hope is entertained that this university will increase its usefulness. The tuition is free. The costs of support of the students have been lately very much reduced. It is proposed, I understand, to make this institution especially useful in training young men in the science of agriculture, at the same time, they are taught the usual *curriculum* generally adopted in the institutions of learning.

There are experimental agricultural stations, regularly organized. The students have the benefit of the educational advantages offered by these stations. They are estimated, I may say, with the institution. These stations are under the direction of an agricultural bureau.

The officers are:

The Commissioner of Agriculture.

The President of the University.

The Professor of Chemistry and of Agriculture of this University.

These stations are well endowed and are in satisfactory condition. This bureau, these stations and organizations have excited interest in agricultural science.

Planters and farmers have improved. They have adopted methods more economical than heretofore. The fertility of the soil has been stimulated, and yields considerably more than heretofore.

Drains are being improved; better machinery and field implements are now in use. I am well aware that I have not made extremely favorable statements in regard to the common schools. They are not what they should be; but do not conclude that I am at all despondent, even in regard to the common schools.

The advantages in Louisiana are many. They will be developed. The common schools will receive deserved attention and support.

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As to common schools, although the revenues are not as much as they should be, the citizens, despite Constitutional restrictions, will devise ways and means to improve them and make them worthy of the State and its people. In welcoming you to our State, we feel particularly

pleased, for we know that you will not be slow in taking part in this good work. (Great applause).

ADDRESS OF WELCOME BY REV. DR. B. M. PALMER,

whose name was next upon the programme of speakers, was heartily greeted on rising. He delivered an able, thoughtful address on "Religion and Churches of Louisiana," as follows:

Mr. Chairman, Ladies and Gentlemen of the Convention:

In reading the New Testament, I find its epistles opening and closing with salutations to the parties addressed; and I see no reason why, in our day, the angels of the church might not address similar greetings to all who approach them. It is for this simple purpose, that I appear this morning.

The highest legal representative of this commonwealth has assured you of the protection which the law extends to all, equally and without distinction. The superintendent of public education has spoken of the condition of our schools; and how those present, and all who came to abide with us, are entitled equally with ourselves to take advantage of these privileges. Although speaking simply as an individual, having no official authority from that branch of the church to which I belong, and still less from other branches of the church to which I am closely related, it is not unbecoming in me to point to the open doors of all our sanctuaries, and to assure all those who come with honest intent within our borders, that they are welcome to all the privileges of the sanctuary. You may perhaps ask me for a guarantee of this broad statement. Let me remind you that Christianity is nothing, if it be not love; and if the church breathe the spirit of the Gospel, she must open her arms to all who come with honest and good intentions.

Least of all can the church afford to be indifferent to the claims of those who come in a Christian spirit. Every man who is virtuous, every man who is intelligent, who has the love of God in his heart and desires with us to extend the Redeemer's kingdom over the world, has precisely the same place in our homes and in our churches as those who are to the manor born; and to such is due welcome, not only to the privileges of the sanctuary, but to the fellowship and esteem which the first implies. But there is an additional guarantee. We of the South have been made to lay especial emphasis upon the distinction between the Church and the State. We have been compelled to regard the church as purely spiritual—her functions as purely spiritual. She has no commission from her Divine Head to control governments or to alter the complexion of legislation. Whatever our individual relation to the State as citizens, whatever we might feel free to do as members of our churches, officially we regard ourselves as confined to the simple function of preaching the Gospel, and saving the souls of our fellow-men. I believe that, in all the branches of the Christian church in Louisiana, their outlook is simply upon the world, and their sole care the bringing of men into the kingdom of the Redeemer. They have nothing to do with the distinction of party, race or sect.

Their simple desire is to fulfill that revelation which God has given to them, and to open the portals of the kingdom into which the blessed are permitted to enter. From their convictions, they are compelled to be liberal and generous hearted. It is impossible for the church, understanding aright its mission and its proper character, to be sectional or partisan. In proof of this, I have simply to point my finger to the open doors of the church's sanctuaries, and to bid each of you welcome to all the privileges of the house of God. Even during the dark and dismal days of reconstruction, when it was necessary that some degree of cau-

tion should be exercised as to parties coming to us from abroad, no man who came to us from the North or the West, giving evidence of his intention to assimilate with us, to share with us our public and private fortunes, and to advance the interests of the land wherein he was about to dwell—no such man was, in any quarter, ever refused the heartiest recognition, and I am satisfied that there are men in this city of New Orleans who will deliver their testimony, that the way to office in the church of Louisiana is as fairly open to such men through an honest election of the people, as to those who are to the manor born.

I feel free, therefore, as a Christian man, knowing somewhat of the Christian spirit of the people amongst whom I have dwelt for a third of a century, to extend to all who come with honest intent, a hearty welcome, until the blessed tidings of a common salvation has been spread over the face of the earth. I regard this as a sacred right due to you through the will of the Father of us all, a right granted to all men by the King who dwells in Heaven above.

Then followed

A BEAUTIFUL POEM OF WELCOME,

by the distinguished poetess, Mary Ashley Townsend.

ADDRESS OF WELCOME BY HON. JOSEPH A. SHAKSPEARE, MAYOR OF NEW ORLEANS.

Hon. Joseph A. Shakspeare, Mayor of the City of New Orleans, amidst much applause, spoke as follows:

Gentlemen of the Convention:

I welcome you in the name of the City of New Orleans, knowing that you are assembled here for one of the most momentous occasions ever held in Louisiana. If there is one State in the South that needs such a convention of gentlemen as I see before me, it is Louisiana. We are suffering for immigration. Not that class which has at times found its way here, but those of the superior kind to which you belong. [Hearty applause.]

Louisiana lands are as fruitful as any in our country. Her climate is excellent, and her health (thanks to the Board of Health), has lost its old reputation, and yellow fever has, it seems, been shut out.

Why, the idea of a convention at this time of the year is remarkable, and there are more people in New Orleans now than for years. My own family has been here all summer for the first time since 1878. I hope that this will be the beginning, and not the end of an immigration movement. There have been many conventions of this kind held in our city. I was connected with one myself some years back, and we spent money in it, too, but it was too soon for such a movement, and nothing came of it. Now, gentlemen, is the proper time to bring people such as you are to this State.

I again welcome you to our city. [Great applause.]

The next address was made by

DR. C. P. WILKINSON,

president of the State Board of Health. He read as follows, regarding data and statistics of the health of Louisiana:

Mr. President and Gentlemen of the Convention:

The task allotted to me in the programme is one upon which I have entered with a great deal of pleasure, because it has enabled me to bring before you, and through you, before the general public, certain indisputable truths to establish the fact that the fertile State of Louisiana is among the most healthy of the States of the Union.

Abroad, it is the common belief that a white man cannot dwell an entire summer in Louisiana, without passing through spells of perilous sickness; this erroneous belief especially applying to recent arrivals from other sections, those to the manor born being sometimes allowed an exemption from the fatal influences of the atmosphere alleged to float continually over our fields; to be inured to the arid, scorching heat which beats, untempered by cooling breezes; to be hardened to influences which would quickly kill any other Caucasian, through a process which, for want of a better or less bad appellation, is termed "acclimatization."

The influences which this gathering of stalwart men, strong of arm and clear of eye, and altogether unacclimated, will have upon an elucidation of the entire truth, can hardly be estimated. No word from friends can magnify or exaggerate the condition of facts when you are here to act, to speak, to demonstrate for yourselves; and the voice of traducer must, in the presence of this assembly, be still.

Probably the principal obstacle which has hitherto existed against the influx of settlers from Northern and Western States into this, has been the annual outcry raised against us of yellow fever.

Forty years ago danger from this cause seemed to operate only in the city of New Orleans. Refugees fled no further than the villages beyond Lake Pontchartrain, to the pine woods of Eastern Louisiana and Southern Mississippi, to the plantations on the Lafourche and along the coast, and maintained unrestricted intercourse with the stricken city without apparently disastrous results to the exiled.

In the year 1878, the disease spread over the entire South, following in the track of travelers from infected regions, and invading retreats of high altitudes hitherto deemed more than surely safe from a visitation. The recollection of that epidemic lives now principally in the memories of the individuals who survived some loss, and of the thoughtful sanitarian.

The dread of yellow fever previous to the year 1878, in the country, a matter afar off, became then a known and tangible fear; and afterward, irresponsible and untraceable rumors of the appearance of this disease, without foundation of fact, annually created alarm, and did much to deter enterprising men from entering and locating their homes within this State's borders.

This dread has now in a great measure subsided, from two causes; the first, that no grounds for suspicion have occurred; that no symptom of a case of yellow fever has developed in the State within the past few years; and the second, that the Board of Health stands solemnly pledged to give the very first case the fullest and widest publicity.

The slightest study of the history of yellow fever, and of quarantine operations within this State, will convince you that mortality from the one, has decreased *pari passu*, with better and more complete application of the other. During the first decade of the past forty years, nine years of which this city was without any quarantine, and the one year it did exist barely in name, more than half of the total deaths from yellow fever of the whole forty years occurred within that short ten; the other lesser portion being distributed, with lessening number every year, over the remaining thirty.

From a close study of the operations of the various quarantine systems, successive Boards of Health have evolved plans, until to-day, one exists which is certified by disinterested parties as superior to anything at present in the world.

Coincident with the evolution and application of the present quarantine service, ceased the annual appearance of yellow fever on shipboard

at the wharves of this city, or among those persons but recently in communication therewith. We are now in the middle of the third year of total exemption from yellow fever; in my opinion, an exemption most closely connected with the application of our quarantine service. I am too familiar with the fallibility of human nature; too well aware of our ignorance of the laws which control epidemic diseases and the susceptibility of a community to overcome or be prostrated by epidemic morbid influences, to state authoritatively that we have found the means of securing ourselves against an invasion of the dreaded enemy; but I do confidently assert that, if undisturbed in its quarantine operations, if left to work out the problem with the aid of the best men and material at its command, if unthwarted by the jealousies of individuals, or by the undetected evasions of rules by travelers and mariners, the safe solution of the question, by a Board of Health, is not far distant.

But with the problem solved, and mortality from yellow fever unmentioned in our records, the rate in the city of New Orleans is not what it should be, not yet placed in the high rank to which it is entitled by its natural advantages.

The mortuary statistics are published weekly, and the records being open to public inspection and comparison, I will not tire you by reciting a mass of statistics, other than to mention the three principal causes of death and their percentage to the total roll, for the two years, in this city; two periods of time which may, with justness, be cited as a fair sample, since neither presents any marked variation from the usual.

In 1886, the deaths in this city from fevers of all kinds, were 379, or 6.20 per cent. of death from all causes; from consumption 889, or 12.55 per cent.; from cholera infantum 188, or 2.88 per cent.

In 1887—All fevers 332, or 5.36 per cent.; consumption 773, or 11 per cent., and cholera infantum 171, or 2.81 per cent., both white and colored included. In this calculation is also included the deaths in the Charity Hospital, an institution drawing patients from every section of the country; these deaths, amounting in 1886, to 960, and in 1887 to 941. Thus, you see an improvement in 1887 over 1886, an improvement which will become more marked as our citizens advance in their knowledge of hygiene and sanitation.

The efforts which are being made to have these two branches taught in our public schools, efforts which I trust and believe will be successful; the attention of our people being directed towards drainage and municipal sanitation; the constant discussion of the subject, and the dissemination of information in the matter now undertaken by our sanitarians, are almost potent factors towards the education of the people and will most positively be productive of excellent results.

The city of New Orleans has improved in its death rate remarkably in the last half century, and though not yet as low as it should be, the interest so plainly manifested in the subject by her people, make the conviction certain that within a few years her rank, from a position lower than the average of the healthy cities of the Union, will be placed on a plane with the healthiest in the world. General and persistent attention through the channels of drainage and municipal sanitation will very soon reduce that mortality, which is now the fault of our citizens and not of our situation.

I will present to you the unbiased and disinterested testimony of Mr. Wm. P. Stewart, the actuary and vital statitiscian of the Mutual Life Insurance Company, of New York, whose business is to inquire into the vital statistics of sections of the country where that company proposes to establish offices. He says of Louisiana:

"You can ask for no better evidence of the fact that your general

healthfulness is now recognized as assured, than to consult your best informed business men on the significance of the action of the Conservative Mutual Life Insurance Company coming into your midst. No one indication of the year has so much encouraged them as this, because they know this company speaks for the largest financial corporation of the world, the soundest principle of mutuality, and the most conservative business interest. * * * I have already expressed my conviction that you are destined to grow into recognition as the great winter resort, and I now venture to prophesy that, with the newly awakened spirit of your people, you will see before the next decade, a commerce doubled, a population increased 50 per cent., and a property value as will make fortunes for those who venture as business men. I have been charmed with the river scenery, the like of which is nowhere else to be found. The many village-like plantations, with their evidence of wealth, refinements and comfort; the broad sweep of river; the luxurious spread of foliage; the inviting stretch of land; the characteristic homes of the wealthy are nowhere else to be seen, and with the trim, tree-shaded, glistening white cottages, go to make up a panorama such as would delight the eye of the most traveled tourist, and put to shame the merest suggestion of 'stored-up disease.'"

The evidence of like disinterested character which I will present to you is the United States census of 1880, the completed volumes of which are only just published. There is no other authority from which we may draw practical conclusions; the basis is only for 1880, and, as no visitations of epidemic scourges took place in any section of our country that year, the standard may be accepted as conclusive.

The errors incidental to one place are practically common to all, and our inferences drawn from a study of the table presented should be accepted as very nearly correct.

After careful and repeated examinations of the tables presented, I am surprised to find that the different localities of the Union do not differ largely in the aggregate to their mortality; the extreme, from lowest to highest, being only 8 in 1000 of population.

The average mortality, for the whole United States, is 14.70 per 1000 for the whites, and 17.29 for the blacks.

For the whites, Oregon is first, with a mortality of 11.04 per 1000, with Minnesota an excellent second at 11.51, and Arkansas brings up the foot of the list with a mortality of 19.11, very closely pushed by educated and scientific Massachusetts, with a mortality of 18.56.

For the blacks, the negro enjoys the greatest exemption in Florida, having a rate of mortality in that State of 11.36 per 1000. He has a very hard time in Rhode Island, where his mortality is 27.10, and he is very much worse, and the very worst off, under the very eye of his particular guardian, the general government; for his mortality, in the District of Columbia, is 35.62 per 1000.

Now, as the position which Louisiana occupies in the white list, I am very sure that Vermont, Tennessee, Indiana and Texas have each of them enviable reputations for healfulness, and a favorable comparison of Louisiana with any of the four, would undoubtedly, excite derision.

What are the facts? Vermont has a white mortality of 15.12 per 1000; Tennessee, 16.21; Louisiana, 15.45; Indiana, 15.88, and Texas, 15.86; or, in this group of known healthy States, Louisiana stands superior to two, and presents only a very fractional inferiority to the others.

The relative positions of the States, including the whole populations, are tabulated and are annexed to this report, which is submitted to you for your disposal, but the reading will occupy too much of your time.

Vital statisticians place very much reliance upon the proportion of

deaths of children under five years old as indicative of the good or ill health of locality. This is undoubtedly a correct index of a fact, but its significance is, in my opinion, incorrectly applied. The laws which apply to the health and growth of an infant are very similar to the laws which govern the life and growth of other things. Suitable food and suitable protection from effects of varying temperatures, are equally necessary in the nursery of human habitations and in the nursery of a florist. The rate of mortality of children under five years marks with unerring finger, the ignorance, superstition, uncleanliness and indifference of grown persons, and not at all the conditions of climate. An index, indeed, of moral fault on part of a people, but of little intent in reference to the salubrity of a locality.

Outside of large cities, in the rural regions of the State, the deaths from that universal disease, consumption, and the deaths of persons having passed beyond ninety-five years of life is, in my opinion, the truest and best exponent of the climatic conditions and life possibilities of any given place.

Typhoid fever is now generally accepted to be dependent upon the purity of the drinking water supply, and is a matter of local or individual prevention.

Malarial fever tells the sanitarian of undrained soils, impure water for drinking purposes, and individual neglect. Without reference to other agencies which bring about those paroxysms or fever which are designated by this name, I advance the commonly accepted doctrine, that the most potential factor in the origin of this disease is humid soil, and therefore, the percentage of mortality from this disease is hardly at all due to the climatatic causes, but to imperfect or impossible terrestrial dryness.

It is unnecessary to appeal to your medical men for corroboration of this statement. You know its truth yourselves, every one of you, I venture to say, from personal experience. Examples confirming the truth of my assertion are of daily occurrence. Returning to official figures, and now excluding the large cities, we arrive at tables which meet our purpose—the relative salubrity of the rural portion of each State.

The highest on record of percentage of deaths from malarial fevers stands Florida, with 9.53 per cent of its total mortality from this disease; the lowest, Rhode Island, with only .08 per cent. In between these two extremes come the other States; those adjacent to our great streams showing a higher rate than the others. Arkansas has 7.65 per cent, Alabama 7.35, Mississippi 7.06, Louisiana 6.06, and Texas 8.04. Our own State showing more favorably than any of her neighbors, save one, in a mortality springing from a disease largely preventable by ordinary attention, by the mass of the people, to the plainest and simplest laws of hygiene.

The least infant mortality is exhibited in New Hampshire, which has 20.88 per cent of infant to the total mortality; Maine, 24.57; Vermont, 24.10; California, 25.31; New York, 25.39; Connecticut, 26.75; Massachusetts, 29:21; Ohio, 34.36; Rhode Island, 33.69; Oregon, 34.99; New York, 35.52; Wisconsin, 35.61; Pennsylvania, 36.15, and then Louisiana with 38.05, the list ending with Kansas and Nebraska, the highest rates in the Union—Kansas with 47.56, and Nebraska with 49.12 per cent.

In this list Louisiana is not preceded by any Southern State. And should the calculation be based on the population only, or on an equal per cent of colored to white, which exists in each of the Northern States ahead of her, her rank would not be fifteenth, but third or fourth. The infant mortality among negroes is enormously large, as, from their

habits, it must be. Subsitute a comparison between the whites in the rural sections of the Union, North and South; and many of our Southern States would show that our people cared well for their young.

The mortality from consumption, that dreaded, universal, and almost hopelessly fatal disease, can, in the country, where the close confinement in sedentary occupations, in ill-ventilated, crowded apartments, does not exist, may be taken as a fair criterion of the actual influence of climatic condition on the inhabitants. Arkansas enjoys greatest exemption from this disease, with percentage to its total mortality of 6.42; Texas second, with 6.05 per cent; Nebraska third, with 6.93; Kansas fourth, with 7.54; Louisiana fifth, with 7.41; Florida sixth, with 8.14; Oregon twentieth, with 12.12 per cent; California thirty-third, with 15.80, and Maine the very last, with 19.16 per cent.

These figures represent the death rate, and do away with the suggestion that the mortality from the disease is largely influenced by invalids seeking the curative powers of certain climates. That influence is, in reality, small, because a larger number of those unbenefitted return to their homes to die; and rarely do friends carry away from home patients in the last stages of this disease.

The percentage of deaths of people over ninety-five years to the total mortality, or, in other words, the proportion of old people in a State, demonstrating beyond cavil the possibilities and probabilities of life in those localities, is exhibited by the census, as follows:

Vermont stands first, with a percentage of .70 of old people to total mortality; and Louisiana second, with .62; Florida sixth, with .52; Rhode Island tenth, with .45; Tennessee twentieth, with 27, and Nebraska last, with only .03 per cent.

From the foregoing facts, we may conclude with certainty:

1. That Louisiana enjoys, relatively to her neighbors, a favorable position in regard to mortality from malarial fevers; being superior to Arkansas, Alabama, Mississippi and Florida, and only a small fraction inferior to Texas.

2. That her percentage of deaths of children places her above any of the Southern States; and, if like population be compared with like, her position will be third or fourth among all the United States.

3. That her position in reference to the lowest rate of deaths from consumption, a disease very dependent upon climatic conditions, is fifth.

4. That her percentage of deaths of old people places her second among all the States for possibilities of long life.

Not all the wealth in gold wrung and delved from our fields, or dug from our mines, or wrought by clang of hammer, or hum of spool and spindle, but more than these,

"Public health is public wealth."

The next address on the programme was by

CAPT. R. E. KERKAM,

U. S. Signal Corps Director, Louisiana Weather Service, who read as follows regarding data and statistics of the climate of Louisiana:

Mr. Chairman, Ladies and Gentlemen:

It affords me pleasure, as a representative of the National Signal Service, to be able to bring the work of the service before this convention in a practical manner, and to prove by official records that the climate of Louisiana is more agreeable the year round, than any other section of the United States. To do this, a series of comparisons will be necessary, and to avoid a lengthy dissertation on the subject, by States, we will

consider only the sections embraced by the extreme Northwest, the upper Mississippi and Missouri valleys, and the Pacific coast regions.

These sections have been taken for comparison, not because they make Louisiana's claims stronger for the immigrant, but because they include a greater acreage of farming lands, and are considered the best in the Union. Should a doubt exist in any mind that a choice was made, it can readily be dispelled by a glance at the weather map displayed here.

Considering the extreme degree of heat, the normal mean maximum temperature, for the hottest month, July, we find from signal service records that, the section of country from southern Illinois and southeastern Missouri to central Minnesota, has an average of 84°, with an average of the lowest temperature for the same month of 65°; making the average daily range of temperature 18°. The same figures for the same month, for the section of country from southwestern Missouri to central Dakota are, average highest, 85°, average lowest 63°, making the average daily range, 22°. For the section of country embracing northern Minnesota and northern Dakota, we find an average highest temperature of 78°, an average lowest of 55°, making an average daily range of 23°. For Louisiana for the same month, the average highest temperature of 99°, average lowest of 74°, making an average daily range of 17°.

Considering the coldest month: It is found that the first named section (the upper Mississippi valley), had an average highest temperature for January of 31°, and an average lowest of 13°, making an average daily range of 18°. For the second section (the Missouri valley) for the month of January, has an average highest temperature of 25°, an average lowest of 3°, with an average daily range of temperature of 22°. The third named section (the extreme Northwest), has an average highest temperature for January of 9°, an average lowest of 13° below zero, making the average daily range of temperature 22°. Louisiana has, for the same month, an average highest temperature of 59°, an average lowest of 44°, making the average daily range for the month of 15°.

To consider the highest and lowest temperatures recorded on any day, at any of the stations in the various districts:

It is found that the maximum temperature of the Mississippi valley, for summer, is 103°, recorded at Des Moines, Iowa, and at Cairo, Ill. The lowest temperature for that section, in winter, is recorded as 43° below zero, at La Crosse, Wis., or an absolute range of temperature of 146°. The highest temperature on record, for the Missouri valley, 111°, recorded at Fort Sully, in Southern Dakota. The lowest temperature, for that section, is 42° below zero, at Fort Bennett, in South Central Dakota, making an absolute range of temperature for the Missouri valley 153°. The third section, the extreme Northwest, has a highest temperature of 107°, recorded at Fort Buford, Dakota, and a lowest temperature of 59° below zero, recorded at Pembina, Dakota; making the absolute range of temperature for the extreme Northwest 166°. The highest temperature on record for Northern Louisiana is 107°, recorded at Shreveport, and the highest on record for Southern Louisiana is 97°, at New Orleans. The lowest temperature on record for Northern Louisiana is 6° at Shreveport, and the lowest for Southern Louisiana is 20° at New Orleans, making the absolute range of temperature for the northern part of the State 101°, and for the southern part 77°, the latter range being less than one-half of the range of either of the three sections quoted.

To compare the mean relative humidity of the various sections: From a record covering from 1870 to 1885, the mean annual relative humidity of the Upper Mississippi Valley is computed to be 69 per cent, the mean

for the Missouri valley is 69 per cent, the mean for the extreme Northwest is 74 per cent, and the mean for Louisiana is 71 per cent, being but two per cent above the average for the two first named, and three per cent below the latter. The highest mean monthly, during the year, in Louisiana, is but 74 per cent, whereas the highest in either of the other sections, is 91 per cent.

The rainfall of the sections under consideration is as follows: The average annual for the Upper Mississippi valley is 39 inches; the greater part of it falling during the summer months. The average for Louisiana is 60 inches, ranging from 4 to 6 inches for each month during the year.

From the foregoing official records it is plain that there is no section east of the Rocky Mountains, that can compete with Louisiana in climate. If we have rivals, they alone exist in sections of Oregon and California.

The following are extracts of reports from those States:

The State of California has an average annual temperature ranging from 51° to 55° on the coast, to 62° in the interior, against a normal temperature for Louisiana of from 65° in the northern portion of the State, to 68° in the southern portion. California has an average rainfall of 11 inches at San Diego, to 28 inches at Red Bluff. An average annual relative humidity of from 54 to 82 per cent—San Francisco having an average of 75 per cent, and San Diego 73 per cent, against an average for Louisiana of 71 per cent.

The highest temperature at Los Angeles, Cal., is 108°; at Red Bluff, 110°; at Sacramento, 106°; and coast maximums ranging from 90° to 101°. At Davidsville and Dunnigan, Cal., maximum temperature of 118° were recorded.

The lowest temperatures for the State range from 16° to 33°; the highest minimums being reported from stations on the coast. The lowest temperature recorded on the Louisiana coast is 34°.

Westerly winds prevail in California, blowing from the ocean. In Louisiana southerly winds prevail, blowing from the Gulf.

In the matter of clear, fair, and cloudy days, California has, doubtless, a greater amount of sunshine during the summer months, with almost a total lack of rainfall. During the winter months, fogs are very frequent in California. The rainfall in Louisiana is evenly distributed throughout the year, with an absence or the foggy days.

"Climatically speaking, the therapeutic area of Southern California is small. It is limited to those localities only which are directly influenced by the ocean breeze, and extends but a few miles inland. In the valleys back from the coast the summer heat becomes unbearable; there is but slight vegetation, and good water is not easily procured. The winters are, however, mild and dry. Only a few inches of rain annually, and out-door life is practicable."

Oregon claims several distinct climates within her borders: On the coast, the rainfall averages from 39 to 79 inches; in the Willamette valley, from 41 to 67 inches; and in the remainder of the State, from 9 to 34 inches annually. The rainy season begins October 15th and ends May 1. Regarding the temperature, it is sufficient to state that the range in the interior of Oregon is from 22 below zero to 106 above. Killing frosts occur on an average of nine months during the year.

Louisiana has but one climate, and that well defined. We have hot weather, but we have also the cool Gulf breeze extending inland, reaching the extreme northern portion of the State, which has, however, a higher temperature than that recorded in the southern portion during the summer. The rainfall and moisture in the atmosphere are nearly

the same, being slightly less north than south. The summers are long, but necessarily so for the crops that are grown.

Louisiana's comparative immunity from killing frosts is graphically portrayed on the small chart on the lower corner of the weather map. It will be seen that the extreme northern part of this State has the advantage of Northern Florida in this particular, and that the southern part of Louisiana, from Avoyelles parish to the Gulf, has no rival, save the southern portion of Florida Peninsula. This is explainable by the fact that the majority of the cold waves that sweep southward over the country during the winter season, are deflected east of Louisiana, and for the following reasons: The atmosphere moves in huge waves, similar to water. The cold wave is the base of the crest of this wave, and the hollow between the crests is the storm center. A storm off the Texas coast, and a cold wave forming in the northwest, are conditions suitable for a great fall in temperature between those regions; since the air resting on the surface of the earth moves out from under a high pressure, flowing in the direction of low pressure, which in this case would mean cold, northerly winds flowing from the northwest of Texas. But since all the movements of the atmosphere have an eastward tendency, the storm that was in the Gulf yesterday, will be found hundreds of miles to the eastward to-day, and the cold wave sweeping down from the northwest has had its attractions removed, and the cold surface winds are now from the northwest. Another cause of the immunity we have from these cold waves is that, there is a wall of warm, moist air overhanging the Gulf, extending over the interior of the State, and the intermingling of the mass of cold air from the north with this warm air, is seldom before both masses have passed eastward out of range of the State.

Another cause is that, storms having their origin on the eastern Rocky Mountain slope, have for an attraction the great lakes; since all storms will move toward a humid atmosphere and to where they have a clear sweep, thus accounting for the great number of our cyclones moving out of the St. Lawrence valley.

It must not be understood from the foregoing, that Louisiana has no cold waves, for during the past winter (my first in the South), the temperature in this city fell to 29° above zero; but while we escaped with that temperature, caused by a high pressure of air that swept down below a storm having its origin in Indiana, Florida on the same latitude, had a temperature lower than that recorded here. [Great applause].

NOTE.—The data from which the foregoing has been compiled are from signal service records covering the period from November 1, 1870, to January 1, 1886, and do not include the cold wave of January, 1886, when minimum temperatures of from 5 to 10 degrees below any previous record were reported from the majority of Southern and Eastern States.

The climate in the vicinity of New Orleans has received most elaborate treatment at the hands of Col. M. B. Hillyard, of that city. With pen and speech, he has been quite awhile agitating the topic, particularly in connection with the point of showing the desirability of that city as a winter resort, and contrasting its attractions with other noted Southern cities in that regard. In that behalf, he made an address before the Chamber of Commerce of Denver, Colorado, last June (1888), at the request of the Chamber of Commerce of New Orleans, on the occasion of an excursion of the latter body to Denver, as the guests of the former body. Still more elaborately, he promulgated his views later on, and, by an immense array of statistics, fortified impregnably the grounds he took in behalf of climate. He kindly furnishes the following matter, and embraces in it entirely new reflections, the result of his own research, and not to be found in the books:

NEW ORLEANS, LA., March 1, 1889.

Hon. T. W. Poole, Commissioner of Immigration of Louisiana, New Orleans, La.:

MY DEAR SIR—With much pleasure I furnish you something on the climate of Louisiana. When I first promulgated my views of the climate of this city, from the standpoint of *statistics*, to a gronp of influential friends of the Chamber of Commerce of New Orleans, there was genuine surprise, and considerable questioning; but the ever-obliging and most efficient United States Signal Corps Director of the Louisiana Weather Service, Capt. R. E. Kerkam, furnished a graphic map, at the request of the then secretary of the Chamber of Commerce of New Orleans, the broad-minded and most energetic, Rev. D. L. Mitchell. Would that this map were printed! At a glance, one comprehends its most striking and almost unknown truths, until later agitation has engraven them deeply into public apprehension.

It was deemed so great a revelation by the Chamber of Commerce of this city, that I was deputed by its energetic president, Hon. H. Dudley Coleman, to deliver an address on the topic before the Chamber of Commerce of Denver, Col., which call I gladly obeyed last June. Since then, my investigations have taken wider scope, and still more startling statistics have been compiled by me. This letter affords only scope for nothing but a most meagre abbreviation of my subject-matter; but I send you something.

The investigations into Louisiana at large are a matter of recent research, and are not obtainable in books. The *data* are scattered, and have cost rather tedious delving to uncover. I beg here, to publicly express my obligations to Capt. Kerkam for his courteous facilitation of my labors.

Before, however, the resort is made to dry statistics, it ought to be said that statistics do not convey (very often) adequate impressions. Men's *feelings* frequently controvert the expectations of facts. For illustration: People will complain at the *coldness* of a temperature at Jacksonville, St. Augustine (Florida); Mobile, Alabama; New Orleans, Louisiana, and elsewhere South, near water, when the thermometer says it is *not* cold. But there is an element called, very happily, "rawness" of atmosphere, that sometimes disappoints bitterly the glorious forecasts of imagination. Then, too, the worst and only occasional aspects of temperature or weather, become to their prejudiced and embittered judgments, the criteria of climate. Coming to New Orleans (maybe), and finding, in a sojourn of six months, a possible aggregate of this "nawsty" weather of two or three weeks, they disregard and ignore stretches of weather of balmiest airs and lovely skies, and almost perpetual bloom of even delicate flowers. Such is human nature, and it is useless to quarrel at it.

Then, too, soil makes a semi-fallacy of temperature, and drainage, likewise. Take two soils, one stiff, impervious; the other sandy and permeable. Given the same temperature, the same quality of atmosphere, the same motion of wind. And the sandy soil will leave upon the mind and feelings better impressions. And, if the same flat, impermeable soil, in one case, be covered with water, and in the other not, the feelings and air will be different. If any one doubts this, let him live in the well-drained parts of this city, and then try, for a short time, a residence of the ilIy-drained.

Then, too, there come in certain occult influences and impressions, the effects of which are imponderable, where discomforts, annoyances and disgust discolor the eye and becloud the judgment, and so utterly confuse and confound the apprehension, that remediable incidents and conditions that cry loudly for redress, and are reflections upon public apathy, *indicia* of civic poverty, and unfeeling concern, and a due appreciation of the needs of sanitation; these, we say, are fallaciously attributed, by the afflicted and disgruntled victim of them, to *climate;* when climate has no proper connection with them. I treat the topic somewhat large, because, just now, there is a pervasive (and I hope it will eventuate in an *effective*), agitation on the subject of drainage of this city. This effectually done (and it is a matter of easy feasibility), and our city will show a marked increase in health, in the comfort of its inhabitants, and in the dryness of its atmosphere. By lowering water-surface, by relieving the soil of much water that its tough texture holds in its clammy grasp, the sun can get a chance to warm the soil and radiate its heat, and constitute a blander atmosphere, and make a better showing in the annals of climate. When this drainage shall have been done, New Orleans will show an almost peerless climate; as it has, now, one of the loveliest, in many aspects, in the world.

But, to return to general considerations of how misleading, to the feelings, often are mere thermometrical and hygrometrical data. Climate has certain features that are above and beyond all those. To illustrate: Take the calm, still, cold of parts of New England, and even some States further West. Put the thermometer at 20° below zero, Fahrenheit. Now, take a "blizzard" Western State. Given an identical degree of cold; but given a velocity of wind of fifty or even forty miles an hour. In the latter condition, man and beast will suffer greatly. In the former, one may walk or ride in the keen, still air, and, properly protected, may not suffer. It is insidious, though, for one, not knowing its treacherous, stiletto-like character, may have members of the body frozen, or even freeze to death, and not be conscious of it. This movement of air is a most vital consideration, in all attempts at estimating climate. And yet it receives, from the average man, either no consideration, or none but the most superficial. Generalities count for little, and I must illustrate, to be at all impressive. One of the bitterest days of suffering I ever experienced was in Northern Kansas. I had often wished to see a blizzard. I took a drive some ten miles across the country, with a driver as guide. The day was a bright and beautiful one in late September—if my memory be not at fault. The air was so delightful, that my driver did not take his overcoat. Soon a faint, thin haze appeared. It thickened. Now and then spattering rain drops came. The wind arose. It strengthened. Soon it blew strong and unremittingly. It was in my face. My solace was that, on my return, it would be *behind* me, and I should be comfortable with the protection of the "buggy" back. I paid my visit quickly. Started back. The wind increased, and blew with remorseless steadiness and violence. I had overcoat and shawl. All were in use. Still I could not keep warm. In holding my hat on my head, my hand was numb in two minutes. The driver got out to keep from freezing, and never entered the carriage again; running for miles. The horse had hard work to pull me in a slow trot, so hard did the wind blow against the vehicle, for it seemed to *front* me at all turns. The rainfall was insignificant, only spattering drops through the swirling mist, stinging like spent shot from a

gun. I got to my hotel at last, nearly frozen, and that night it was not nearly cold enough for a fire. I have never wished to be in a *winter* blizzard since!

Once I was in New York, in Dutchess county, twenty miles east of the Hudson. It was late December. On a bright, cloudless day, about 8 a. m., I took a short walk. (It had not been cold the day before.) I found, to my surprise, several inches of ice on a lake that was entirely open the preceding day. It was so still, that the dead leaf never rustled in the tree. I was so deceived, that my overcoat (as I think) was not worn. Upon my return to the house, I looked at the thermometer, and it registered six (6) degrees below zero—Fahrenheit. It was so still (no wind) that I was grossly deceived, not living in New York. But my nose and ears made a narrow escape from freezing. I should have been far more conscious of cold in Central Delaware (where I then lived), with the thermometer fifteen (15) degrees above zero—Fahrenheit.

Take another illustration of wind in Western Texas—the "Norther." There the utmost suffering may come to man, and often death to brutes, with a suddenness that almost passes belief, and yet often it is not cold enough to make ice. And even in summer there are, sometimes, these winds there.

And this leads me to just say, that *sudden changes* are features of climate that ought to receive due consideration, *especially when the changes are wide extremes*. And the reader is begged to weigh duly the showing Capt. Kerkam makes, in the premises, in favor of New Orleans. There may be a sudden change here from 60° or 70° Fahrenheit, in winter, to 20° to 30°, in twelve to twenty-four hours. One knows it and *feels* it, and the visitor who is looking for perpetual Paradise here will carp at it; but it is something horrible, where he comes from, when the weather changes from fifty above zero to twenty below, in the same time.

And it is important to impress the reader that these high winds and sudden changes are what rack the constitution. In any of these cold, windy States, one will find catarrh fearfully prevalent, and its almost congeners and common sequels, pulmonary consumption and chronic bronchitis.

Now, for summer winds. The discomforts of these at the West (particularly), to the physical existence of man, is only one feature. In some of the States there, they not only raise, very frequently, great swirling clouds of dust, impairing eyesight, filling the lungs, rendering untidy wearing apparel, begrimiing face and hands; but, have serious, and often, fatal effects upon agriculture. Its sirocco-like heat impairs vegetables and field-crops, and often hopelessly blights and withers them. The extreme dryness of these winds finds an added element of detriment or destruction in their velocity. Every one knows the drying effect of high winds, and this, blended with the capacity of their absorption of moisture, soon leave the ground robbed of moisture needed for plant and vegetable life, even after heavy rainfall or irrigation. I have known, in Colorado, fields, where were growing crops, that were profusely irrigated one day, to need the same treatment, as badly, the next. The thirsty air and the greedy wind had plundered soil and crop of their sustenance and moisture.

In parts of Kansas, hay must often be stacked at night, on account of high winds. And the high, hot winds dry up the streams, too, in many places West, entailing suffering and death to live stock. And, because the air absorbs the moisture so, the rainfall has not the chance to permeate the soil; and water, for family use in pumps and wells, is greatly reduced in quantity, and, in summer, in many places West, water is often a commodity, selling at so much per barrel or bucket. Frequently, farmers have to drive five miles, and haul muddy water from holes in streams, whose beds are, elsewhere, dry. And it is a common thing, at farm houses, to see some such notice as this: "No water given away, but for drinking purposes." In fact, it would be almost impossible to enumerate all the drawbacks of an area of scanty rainfall, aggravated by prevalent high winds. It takes the bloom from the cheek of beauty, and blights that of the rose. It blasts the fairest fields. It brings death to the beasts of burden, and numberless discomforts to man. In some parts it literally blows crops away, denuding them of soil, until finally, the crops, wheat, oats, and rye are removed, and piled in dried masses, far from the localities where they were sown. And in the places where the high, hot winds prevail, and the scant rainfall (and these seem inseparable), the terrible blizzard dominates in winter, and the awful cyclone revels in summer.

Louisiana has blessings of climate that no panegyric can adequately portray. Her rainfall is more profuse than that of almost any State in the Union (or Territory, for that matter). It is well distributed throughout the year. Incstimable is the strange happiness of the fact that, it is greater in summer than other times; *for that is the season for crop-making—just when it is needed most.* Then, the dews play a great part, too; and are a great preventive against crops suffering for want of water. Every one knows how scant are the dews West, or else how totally wanting. And, in connection with rainfall, there is a nice point to be made, in that a very large quantity of ammonia always existing in the earlier stages of rainfall, and the rainfall of Louisiana being profuse, her soil secures a vast *quantum* of fertility from the sky, as it were.

In this fact lies the solution (in my opinion) of the problem to so many agriculturists. In parts of the State, they find lands bringing immense crops of grass. The Western farmer, reasoning from his home-experiences, assumes that the soil will bring corresponding crops of corn, oats, etc., but finds himself disappointed, and experiences small crops, without fertilization. The explanation is that, the grass grows so, and yields such crops, because of the large quantity of *ammonia in the rainfall*, and because the sun does not evaporate it, because the ammonia is absorbed quickly. The rainfall is a *liquid manure*, and the grass, shading the soil, prevents the sun from evaporating the ammonia.

As Louisiana cannot have dry winds (except almost phenominally), so she has no high ones, so far as moisture-absorption or removal of moisture is concerned. Her high winds are *storm* winds, and almost necessarily involve precipitation—generally marked by heavy rainfall.

But, while Louisiana's is not a windy climate, it is a breezy one. The airs from the Gulf of Mexico are pre-eminently bland, cooling, and softly exhilarating. Particularly are they in their strongest effects, soothing to shattered nerves; and the experiences of the Western immigrants, in Southwest Louisiana, give most incontestible proofs that Louisiana's climate is most beneficial to catarrh and rheumatism. An explanation of their effects is most easy as to catarrh. The atmosphere is heavily charged with saliveness, and the air inhaled reaches the seats of disease, in perpetual medication and insensible administration, beyond the reach and annoyances of man's applications; which are often nauseating and expensive. Every one

knows that it is a common affair to snuff salt water up the nostrils for catarrh and other diseases of the head: and the atmosphere of the Gulf of Mexico has none of the intermittency, pungency and partliness of that remedy, and has all its beneficial effects.

The beneficial results as to rheumatism are not so directly explicable by me. I presume that, ozone from the sea, in its invigorating and tonic effects; that exercise, open air, with their system-building opportunities, through better appetite and digestion, exercise an influence quite imponderable. Then, exemption from high winds, and the rigors of winter, play a very important part in the good work. Every one with a frail constitution knows what dreadful havoc excessive cold plays with the nerves, and creates or aggravates neuralgia. I am quite certain that excessive cold is a very material factor in rheumatism; and, while I am willing to, most readily admit that, for persons not subject to the rigors of winter, the greater dampness is not so favorable to rheumatism as a dryer air and a greater altitude, yet, taking all in all, the climate near the Gulf of Mexico is far better for rheumatism than life, in much, if not most, of the West. Experience in the last analysis of tests, and be the explanation what it may, the triumphant fact voices a pæan, to Lonisiana's climate, of scores of literally rejuvenated Western people, who were distorted and racked by the pangs of rheumatism in their old homes at the West. The proof, on that score, is decisive, and the matter is aloof from the domain of conjecture.

And while I wish to touch the topic with due delicacy of assertion, it would be an outrage on the climate, and a wrong to fact, not to state that most of our climate is highly beneficial (if not curative of), chronic bronchitis and pulmonary consumption, in cases where parties have lived in a more rigorous climate. I do not think one need go far to get at facts of deepest import in explanation of those results. A person goes from a temperature of 100° or more degrees, Fehrenheit, in his house, into a temperature of from zero to 20° or more degrees below. Is there any trouble in knowing what the cold air does with delicate throat and lungs? And breathe, one must. One is confined in a highly-heated, poisoned atmosphere, by breathing, again and again, the same air, because the excessive coldness of the outside air prevents proper ventilation. In order to resist the rigors of cold, with bodily vitality, food, strong in carbon-making quality, is needed. That demands good digestion, and exercise and pure air are great factors thereof. But, the open air is an open door to the citadel and seat of disease (the tender lungs and throat), of their worst enemy, zero, and twelve below. So indoors and out, is danger or death. Here, in Lonisiana, zero is never touched by the hand of the icy king. Open air and exercise are always possible. Fire-places dispense their healthful warmth and enhearteniug and picturesque glow. Food high in carbon-making is not needed, or if eaten, exercise and pure air can promote its digestion. No stealthy assassins of lungs and throat, stalk these with their keen stilettos, in the guise of zero and his myrmidons from his lower realm.

And, if the sufferer from these last two complaints, selects some spot in the pinewoods, where the air is dryer, he finds additional advantages in altitude, and the balsamic airs medicated by the odorous pine—securing healing or soothing from them, with the ozone of the sea combined with the soft and almost ethereal mildness of the Gulf breezes. No one can describe properly a winter's day in the pinewoods of Louisiana, when that day is at its best; when, far away in the ethery depths, the sky, without fleck or film, seems to look down in a grandeur of love-like benignity upon the enraptured earth; when the spell that defies explanation, draws from the dear and inexhaustible repertory of nature so many bewitching elements.

The pine sighs its soul in sadly-sweet monotone, in such enchanting diminuendoes and crescendoes, that it seems to play a delicious motette; like a wonderful musician a melody on one string of charmed instrument. The mockingbird, in many a winding bout of "delicious lay," in

"The sweet music of his open mouth,"
"And linked sweetness long drawn out."
"From the sugared nest of his delicious soul,
Lets fly "a shoal of full fledg'd notes"

that sparkle in crystalline delight, and float, and run, and soar, until they greet the azure welkin, and seem to challenge a seraph for a music-duel.

Underfoot, the flowers,

"With rich inlay, broider the ground,
And make mosaic."

Near by, in some embowered cottage, with garden full of jonquils, hyacynths, narcissus, etc.,

"The rose rears high her flourish'd head."

On the bosom of some stately magnolia, the yellow jasamine has woven its graceful wildness of golden embroidery. Enough of these. But, bring this easy possibility to pass. Put more features in the picture, of other flowers, and multifarious odors, more mocking-birds, and breezes soft as when

"Zephyrus on Flora breathes,"

and you have only a few traits of a winter's day, in thousands of Lonisiana homes.

Now bring your consumptive from hot rooms and foul airs, from piercing cold and howling winds, where even "the rathe primrose" has not yet put in an appearance, and where the flowers have not yet

"Awak'd from the dreams of their wintery rest."

Place your invalid in the setting I have made, and see if he will not be a different picture, in heart and health, than in the frame of ice where he shuddered and shivered, and pined and faded, in his Western prison; the forerunner of tomb, had he remained at home. Surely, one may say, with utterly changed import, and with the irony of *cold* fact, of *such* a home:

"There's no place like *home*."

But I want to tell of a most material aspect of our breezes, the latter almost always prevailing all day and night (dying down to almost stillness at nightfall, for a short time, then ceasing in the early morning, and coming on soon after), that they are one great explanation of our health. They dissipate, before them, "the lazy elements that else would stagnate into pestilence." The almost perpetual movement of the air scatters miasma, and prevents festering

and seething gasses from their deadly or deleterious effects in climates less winnowed by breeze. The sea-born airs

"Their gelid wings expand,
And winnow fragrance o'er a smiling land.

Any one not conversant with the antidotal quality of saline air, in Louisiana, will look, in perfect amazement, at the fens and holes in Louisiana, where scum and filth, and stagnation are seen on or around pools and ponds near the homes where indifferent people reside, and wonder at the health of the inhabitants. But, the pervading and prevailing breezes are the explanation. And then the saliness of the breezes make them strongly antiseptic, and destroys microbes and bacteria, may be. So pure is our air, nearer the coast, that people cut their beef—"jerk it," to use the provincialism—and hang it on the fences to dry - which it does without putrefaction. And I have seen venison, even some distance from the coast, keep sweet and untainted for two days (how much longer it would have kept I don't know, for it was then eaten), hung out in the open air, with the temperature away up in the seventies. One might think flies would soon infest it. Not so. The remarkable paucity of many species of flies, in many localities, and the little annoyance flies are generally to live stock, in many quarters, is one of the paradoxes of our country. But, I must not be inveigled from my main topic, by that strange and important fact.

Our nights, in summer, are almost always cool and sleep-inviting. Rightly placed, a man might almost spend a long lifetime in almost any part of this State and never once lose a night's sleep on account of excessive heat. By being "rightly placed," I mean having a sleeping apartment that enjoys the coolness that nature affords. If he gets in some room, in a large hotel, in a city, or elsewhere, that has been heated in the day of a midsummer's heat, and that has not been cooled, or cannot be cooled by the delicious breezes playing elsewhere, and that have lowered the temperature to a delightful degree, then he will welter (as he will North and West), in heat and sleepliness much, if not all the night. But, that is not *climate*, but *location*.

Our suffering here is, (in summer), *out of the breeze*. Shut your windows, get out of the breeze, let the breeze cease, and one suffers. One notices it, particularly, when the sky becomes clouded, and the breeze lays; generally, a condition of things closely or immediately preceding a rain or thunder storm. That is our most trying type of heat, I think. It is sultry. The clouds act as a roof to prevent radiation; the cooling effects of the breezes cease, and, to one not used to it, it is apt to be trying for awhile. Then, too, the moisture surcharging the air, prevents absorbtion of the perspiration, and makes one sweat profusely, while a dry heat would absorb insensible perspiration, and measurably relieve. But, the sultriness and stillness are not the weather of Louisiana's climate. They are hardly *features*, rather *expressions*, of our weather. Her face is sunshine, and her breath is vocal. Her shades are always delicious, cooling, soothing, grateful, *satisfying* when nature is in her normal mood. One may suffer in the sun; but the shade never disappoints, in the prevalent conditions. I don't know but the best way to put it is to say that the *sun* is hot, but the *air* cool. Out West, as I have ridden over their great prairies, in a carriage, exposed to the sun's rays (and they are fiercer than ours), I have said: "Well, I'll soon be in the shade, and then I'll be comfortable." Alas! I was disappointed. The *air* is hot, as well as the *sun*. Western people are constantly wondering at Southern men complaining at the heat North and West, in many places; and deem it an idiosyncracy or affectation; but a man from the *saline* atmospheres (particularly), of much of the South, will always suffer in the summer-heat of much of the West, and will find intense comfort in getting back to the delicious coolness of Southern shades. I have spent enough summers in New Orleans, to know its climate and weather. Then, I have spent summers near the Catskills, in New York; at Saratoga Springs, New York; Cape May, New Jersey; some time at Newport, Rhode Island; in various points West and North, even to Lake Superior; and, given a cool room here, so far as delicious sleeping and lovely, cooling breezes are concerned, I give my preference to New Orleans.

It used to be the fashion for our people to go North or West every summer. Much of it was an affectation of fashion, and a whim of travel. Now, they are building summer cottages on the coast between here and Mobile, and will soon be doing the same at the grand surf of our coast further West: Grand Isle and elsewhere.

This matter of breeziness has a very material connection with the question of labor in the field, in the walks of agriculture and horticulture. I have said that the breeze dies down after prevailing through the night, begins again from 6 a. m. to 10 a. m. (rarely so late as the latter hour), blows until about sunset, ceases from one to three hours, and then blows until early morning; (that is the *summer* habit). From this, one can see that the *working* hours are the *breezy* ones in the day; and that night offers the soft lure of "nature's sweet restorer, balmy sleep," to the weary worker of the day. It is a beautiful economy of nature, and looks like a partiality of Providence. How the hot nights of some climates "murder sleep;" and the man who has "borne the heat and burden of the day," and is worn out with work and lassitude, lies down in vain attempt to recuperate for the labors of the morrow by sleep; or if

"Hushed by buzzing night-flies to his slumber,
It is a 'short and disturbed repose.'"

full of tossings and feverish snatches of sweltering unrest.

And then, the native of other climes—England and parts of Italy, will not fail to remember the still air of summer days. The poets tell us of them. Thus Milton:

"His look
Drew audience and attention still as night
Or summer's noon-tide air."

Shelley writes:

"When noon lays heavy on land and tree."

Later, Tennyson:

"The all-weary noons."

There has been written much nonsense about Northern men not being able to stand field labor in the South. The pen and tongue of slander, in this regard, have not ceased, even now.

And, considerable honest misapprehension still exists in the minds of Northern and Western men. It is worth a few words here, to do our share to dispel it. Abont fifteen years ago, I had a long interchange of views with Sir John Crossly, M. P., of England. He was, at that time, president of the Mississippi Valley Society, of which the Honorable Jefferson Davis, the illustrious and revered President of the Southern Confederacy, was the leading American representative and official. This society had, for its aim, the development of the Mississippi Valley (mainly), through the intervention or introduction of English capital, enterprise and immigration. Sir John told me that, a pressing need was to remove, from the English mind, the opinion engraven upon it by a century of cogent, vehement, reiteration upon the part of the South (as the fundamental defense of and apology for African slavery), that the white man could not stand field labor there, and that negro slavery was a *necessity* of her agriculture. He said that that belief was wide spread, by reason of its sincere, long and unchallenged asservation. Immediately, I set to work, issuing a circular-letter, directed to Europeans and Northern white men who had come South, and had tried field labor long enough to test the matter, as to the truth or falsity of the statement. This circular-letter I sent, a copy each, to every paper, in two or more Southern States, especially Mississippi and Louisiana. Papers in other Southern States copied the letter. I was overwhelmed with replies, and the testimony covered, I presume, the experiences of thousands; for, one letter represented several hundred Swedes who had located in Mississippi. The gist of the reply was, to utterly refute the fallacy. Numerous letters not only spoke of standing field labor South as well as in their old homes North and West, but of even standing it better; and, in addition, spoke of improved health. More than this I remember one or more instances, where white men endured labor on railroad work (track-repairing, etc.), better than negroes—the estimable Captain John J. Conway, of the Illinois Central Railroad (Southern branch), giving me much illustration in the last regard. And the convention of Northern men, who have lived in Louisiana, held in New Orleans last August, 1888—to assert the proof of fifteen years ago, was a reaffirmation and echo thereof, the only difference being that my investigations took a far wider range, and embraced, not only Louisiana, but several other Southern States. So, I hope to hear soon, no more of this utterly false assertion.

It is quite sure that, now and then (semi-occasionally), the climate does not agree with one from the North or West, at that place where he has located. But somewhere else in the State might. And even if no place suits, it is only what is happening in thousands of instances elsewhere. Many people are not well *anywhere*. And, then, it is certainly true that, some people come South with the most absurd expectations. They come, maybe, from a country where drought has ruined them, or frequently blights their old homes. And, then, when the rainfall is one of the richest bounties of Providence to Louisiana, and it *must* make mud sometimes, and indoors a necessity, they complain at mud and rain. They come from the blizzard-infested belt, where they go to and from the stable by "safety lines" from the house; where they are absolutely besieged by storm for days; where man and beast often freeze to death, or die from starvation because they can't be reached with food; where the thermometer stays below zero for weeks; where they sometimes have to burn fences, and even parts of their residences and barns for fuel, to save them from freezing, and they will come South, and if the thermometer be 15° or 20° Fahrenheit, they will say they suffer from cold here more than when at home. Well, they may suffer more South, at that *temperature*, than *at home*, with the same temperature; but they don't suffer half, nay, even a tenth, as much from that temperature South, as they do at zero and below, at home. The fallacy consists in not comparing our *worst* weather with theirs. And, let it be remembered that, if our air be a little raw and more uncomfortable than his at home, when the thermometer marks the same degree of cold in both instances, let them remember that it is only uncomfortable, not dangerous, deadly or expensive, and has not, as its incidents, the fearful catalogue we have mentioned as characteristics of his winter in the West. Let it be understood, too, that our disagreeable, mean weather is of short duration (only a "cold snap") while he is liable to months at home, and, in fierce continuity, too. But, when one finds a man who comes South, from the West, and innocently tells you that he thought overcoats were never needed here in winter (as is the case sometimes), or when he walks out or rides, in our roughest weather, without that garment, and in such cases complains, and is surprised at feeling cold, can any wonder at such an one telling you, in inane sincerity, that it is as cold here, or colder than at the winter-ridden and blizzard-harried West? Don't he know better? Why, the very roses blush for him, as if in shame at his hardened cheek or shallow brain, and breathe refutation myriads of other flowers with their odors. The radishes, lettuce, garden "sass," and other vegetables rise to confound him. All nature, animate and inanimate, seems to reply; even the birds, in melodious contradiction, and the young chickens in the barn-yard, and the bees a-wing, the strawberries ripening or eaten at his host's table.

In summer, he will talk of heat, and will tell you that 96° Fahrenheit here, is more punitive and trying than 103° or 105° in his Western home. That may be. But let it be understood that we don't have that heat regularly in Louisiana. Let it deeply impress the carper, too, that if our temperature be more sultry, that betokens great advantanges. It means almost total immunity from sunstroke, so common North and West, that plays such sad havoc with man and beast. The sun's rays are measurably quenched and cooled, in the moisture of the atmosphere. Let him remember, too, that our sultriness means rainfall, and that means crop-making, exemption from ruinous droughts, prosperity to agriculture. Let him remember that it means coolness in the shade, delightful slumbers at night, noble forests, perennial streams, perpetual fruits and flowers. Let him remember that, on this earth incompatible advantages are not to be had. One cannot have united the best aspects of a dry climate, and those where there is a more humid one.

If the cavalier retorts that the extreme heat of his climate is of shorter duration, and is relieved by intervals of great change; granted. But are regularity, evenness of climate nothing? Is it a *desideratum*, to-day to welter in the heat of 103°, and to-morrow have to wear overcoats, and drive with buffalo robes? In New Orleans (and most of Louisiana), one can put on a linen garb in May, and wear it daily, almost or quite, to mid-October. Many places North and West, it is linen to-day, and thick, woolen clothing to-morrow. Sometimes, it is both the same day. In fact, people from the North and West experience needless suffering

from our heat, because they persist in wearing the same heavy clothing here that prudence dictates and safety demands at home. They fear to attire themselves as we of the South do, lest, forsooth, they should catch "cold!" They avoid draughts of air, to sleep or sit in the night air, when our people do it with almost total impunity. It is amusing to ride on the cars, and see the timorous people pull down the windows, pile on the wraps, and swelter; and then complain of *heat*! And I have known them to go in rooms to sleep, already hot, put down the windows, use heaps of bed-clothing, for dread of the night air; and then say they can't stand our climate—next morning jaded and worn out by the sweat-bath of the night. Next door, some sensible man had the wind blowing over him in great waves of balmy coolness; and in the morning is cheery with his deep and restful slumbers of the past night. But, these half-hypochondriacs are only using the needed precautions of home. They know how insidious and hurtful is the night air there. They know that they dare not sit or sleep in a "draught," lest they should take cold. And, they bring their habits and precautions here, with added apprehensions of Southern air; as though the soft and kindly breezes were devils in disguise, armed with chills, fevers, colds, etc. Let them throw such foolery to the winds! And, if our reply to cavils will not satisfy that one who is so unpersuadable, then let him weigh the great, unanswerable argument that, he certainly must confess the discomforts, diseases, deaths, exposes incidental to his long winters, are far worse than the real or fancied discomforts of our long summers.

Our rain, in summer, is seldom in the night, from May to December. In winter, it is heavier at night than day time. Explanations easy, but I pass on.

If there be an enquiry at or wonder how we have so much precipitation or rainfall, and so much sunshine, the answer is that, when it rains, it often "pours." Sometimes seven inches of rainfall occur in a few hours. Four or five inches per day are not infrequent. The sky seldom scowls in empty threats. There are few of those long-delayed promises of rain, that frequently delude and disappoint the agriculturist North and West. The sky is overcast, the rain falls heavily, and the heavens are soon bright, with the breezes piping. We have none, or next to none, of those hot, close, steaming, mists or vapors, that curtain the air in landscape-clouding, suffocating stillness, and that often produce rust in wheat so soon.

I have thus given some views of climate, of which climatological statistics give little, or no apprehension to the average man. "Mean annual temperature," "monthly maximums and minimums," "dew point," "relative humidity," and the vocabulary of signal service reports, mean little to him. The climatologist, men of science, *deduce* from the dry facts of those, much that I have said. But the average man desires, needs to have, the outcome of them, and what they *mean*, portrayed. That I have attempted.

But we know how the other class would complain (and justly), if we did not give the highest *data*; so, we furnish tabulations, particularizing somewhat, where Capt. Kerkam has generalized in broad deductions. By this treatment, we aim to satisfy all, and satisfy the more curious inquiry of the scientist or critic.

The following table is from the report of the Chief Signal Officer, War Department; appendix 10; page 82 *et seq*, for 1885; part first:

Mean temperature (in degrees Fahrenheit) at stations of the Signal Service, United States Army, for each month and the year. (Computed from November, 1879, to December, 1884, both inclusive, except at stations opened subsequent to the former date).

[The daily means are obtained by dividing the sum of the 7 a. m., 3 and 11 p. m. (Washington time) observations by 3; the monthly, by dividing the sum of the daily by the number of days in the month.]

Stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
New England:	°	°	°	°	°	°	°	°	°	°	°	°	°
Eastport, Me	19.8	23.2	27.9	37.8	47.1	56.2	60.5	61.1	56.5	46.7	36.1	25.7	41.6
Portland, Me	24.2	28.7	34.0	44.7	51.1	65.0	69.6	68.6	62.3	51.0	39.6	30.1	47.8
Mount Washington, N. H	6.1	8.8	9.6	20.1	34.2	44.3	46.7	47.2	42.6	30.2	17.2	11.3	26.5
Boston, Mass	26.4	30.1	33.9	43.6	55.3	65.8	69.9	68.8	63.5	51.7	40.0	31.4	48.4
Block Island, R. I	30.1	33.3	35.9	42.8	51.9	62.4	68.5	68.4	64.7	55.3	44.9	36.1	49.6
New Haven, Conn	26.5	30.6	34.5	45.2	57.3	66.9	70.9	69.5	65.0	53.0	40.8	31.1	49.3
New London, Conn	28.8	32.1	35.9	45.3	56.4	65.7	70.3	69.3	65.1	54.3	42.3	33.5	49.9
Middle Atlantic States:													
Albany, N. Y	25.0	30.0	34.8	47.8	61.2	70.1	73.2	71.9	65.9	53.0	40.4	30.4	50.4
New York City	30.0	33.6	36.7	47.0	59.3	68.3	72.6	71.6	67.5	56.2	43.2	34.4	51.6
Philadelphia, Pa	31.7	37.1	40.2	49.9	62.6	71.5	75.1	73.7	69.3	57.7	44.6	36.1	54.1
Atlantic City, N. J	32.4	35.7	38.6	46.7	57.8	66.9	72.6	71.6	68.8	58.5	44.5	36.8	52.2
Barnegat City, N. J	31.9	35.1	38.3	46.0	57.2	66.5	72.2	71.1	68.0	57.7	44.2	36.4	52.5
Cape May, N. J	34.8	39.0	41.4	48.9	60.0	68.5	74.1	72.9	70.1	60.6	48.0	39.4	54.7
Sandy Hook, N. J	30.8	34.1	37.6	47.1	59.5	68.8	74.0	72.8	69.0	57.9	45.0	35.8	52.7
Delaware Breakwater, Del	32.1	38.6	40.4	48.1	59.7	68.2	72.2	72.4	69.9	60.8	47.5	38.2	54.0
Baltimore, Md	34.4	39.7	42.5	52.6	65.3	73.6	76.9	74.7	70.2	59.3	46.0	38.3	56.1
Washington City	32.3	38.5	41.2	51.7	64.9	73.0	76.2	74.3	70.2	59.0	44.7	36.5	55.1
Cape Henry, Va	39.9	45.0	46.4	54.0	65.2	73.3	77.3	76.1	73.4	64.6	52.2	44.6	59.2
Chincoteague, Va	33.5	39.2	41.4	49.4	60.2	69.5	74.4	73.1	70.5	61.3	47.9	38.9	55.0

Mean temperature (in degrees Fahrenheit) at stations of the Signal Service, United States Army, for each month and the year, &c.—Continued.

Stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Middle Atlantic States—Continued:													
Lynchburg, Va	37.5	43.8	46.1	55.9	68.0	74.8	78.0	76.0	71.1	61.1	46.7	40.4	48.2
Norfolk, Va	40.7	46.6	48.0	55.6	67.6	75.2	78.9	76.7	73.1	63.7	51.2	44.6	60.1
South Atlantic States:													
Charlotte, N C	41.5	48.3	50.4	58.8	69.0	76.1	79.4	76.7	71.8	63.3	49.8	43.8	60.6
Hatteras, N. C	43.2	48.8	50.0	55.2	66.0	74.2	78.2	77.4	75.3	67.6	56.2	47.3	61.8
Kitty Hawk, N. C	42.2	46.7	47.5	53.6	64.8	73.5	78.2	73.3	74.0	65.5	53.6	46.4	60 [illegible]
Macon, Fort, N. C	43.8	49.8	51.4	57.1	68.0	75.0	78.8	77.7	75.0	67.6	55.5	48.4	62.4
Smithville, N. C	47.3	51.9	53.9	60.2	70.2	77.0	80.7	78.8	74.8	66.8	54.6	49.4	63.7
Wilmington, N. C	48.3	53.5	55.0	61.2	70.1	76.7	79.9	78.2	74.6	67.0	55.1	50.2	64.1
Charleston, S. C	51.6	56.3	58.3	64.3	72.8	79.5	82.8	80.6	76.9	69.5	57.8	53.4	66.9
Augusta, Ga	48.8	54.9	57.3	64.1	72.4	78.7	81.9	79.5	75.6	68.2	54.8	50.2	65.5
Savannah, Ga	53.1	57.6	60.6	66.7	73.9	80.3	83.3	80.5	76.6	69.5	58.6	54.6	67.9
Jacksonville, Fla	57.4	61.4	64.2	69.6	74.9	80.7	82.9	81.0	77.7	72.6	62.5	58.4	70.2
Florida Peninsula:													
Cedar Keys, Fla	58.2	62.3	64.5	70.5	76.0	80.7	82.7	81.7	79.6	74.1	63.6	59.7	71.1
Key West, Fla	71.8	73.1	73.9	77.2	80.0	83.7	85.3	84.2	82.7	79.4	75.4	71.9	78.2
Sanford, Fla	55.6	65.3	68.4	70.8	75.5	78.6	82.4	80.4	78.6	74.8	67.1	64.0	71.6
Eastern Gulf States:													
Atlanta, Ga	44.1	50.0	53.0	61.0	69.1	75.4	78.5	75.8	72.6	65.1	51.2	46.1	61.7
Pensacola, Fla	54.1	58.4	61.8	67.9	73.9	79.7	81.0	80.3	77.3	71.9	59.4	55.4	68.4
Mobile, Ala	52.3	57.1	61.2	68.0	74.4	80.7	81.1	80.4	77.3	71.4	58.8	53.4	68.0
Montgomery, Ala	49.5	55.1	58.4	65.5	72.9	79.1	81.3	79.6	76.0	69.7	55.3	50.6	66.0
Vicksburg, Miss	49.0	54.9	59.4	66.4	73.1	79.9	81.3	80.3	75.4	68.9	55.3	51.8	66.2
New Orleans, La	55.9	60.5	63.9	70.0	75.6	81.1	83.0	82.0	78.9	73.2	61.4	57.4	70.2
Western Gulf States:													
Shreveport, La	46.8	52.1	58.9	66.8	73.6	81.0	83.1	81.7	75.3	68.4	54.4	50.0	65.8
Fort Smith, Ark	32.0	40.8	50.7	59.4	68.0	76.8	79.6	76.7	72.5	64.5	51.3	40.4	59.5
Little Rock, Ark	42.5	48.0	54.1	62.7	70.0	77.9	80.0	78.6	72.6	65.5	51.5	45.3	62.3
Galveston, Tex	53.0	58.3	64.0	69.9	76.3	82.4	84.0	83.4	80.1	74.7	62.2	57.8	70.5
Indianola, Tex	53.0	58.2	64.7	70.8	76.4	82.0	83.2	82.3	79.4	74.6	62.3	57.3	70.2
Palestine, Tex	42.0	54.0	60.8	65.2	70.6	78.6	81.5	79.6	75.8	68.7	56.7	49.7	65.0
Rio Grande Valley:													
Brownsville, Tex	58.6	62.9	68.8	74.1	78.8	82.6	83.4	82.2	79.4	75.5	65.4	61.8	72.6
Rio Grande City, Tex	57.6	64.4	69.7	76.2	80.3	85.3	86.8	83.1	82.5	74.8	63.6	60.2	73.1
Ohio Valley and Tennessee:													
Chattanooga, Tenn	41.9	48.0	51.5	60.0	68.2	75.0	77.6	75.9	71.1	63.8	49.6	43.6	60.4
Knoxville, Tenn	39.0	45.4	48.4	57.6	66.9	73.2	75.2	74.4	70.2	62.4	47.0	40.4	58.2
Memphis, Tenn	40.8	47.0	52.1	62.0	70.6	78.0	80.4	78.9	72.6	65.2	50.1	43.7	61.7
Nashville, Tenn	39.6	45.8	49.7	59.6	69.2	76.2	78.2	77.4	71.5	64.1	48.6	41.6	60.0
Louisvillle, Ky	35.7	42.1	45.1	56.0	66.9	74.0	77.1	76.0	70.4	60.9	46.6	38.8	57.4
Indianapolis, Ind	29.5	35.5	40.1	51.9	64.0	72.5	75.3	74.1	67.6	57.0	41.5	32.4	53.3
Cincinnati, Ohio	34.8	41.0	44.2	54.3	65.6	73.8	77.0	75.6	70.4	60.2	45.3	37.6	56.5
Columbus, Ohio	29.5	35.8	39.1	50.0	62.8	70.8	74.1	72.5	67.4	56.2	41.2	33.2	52.6
Pittsburg, Va	31.7	36.4	38.6	50.3	63.1	70.6	72.8	71.9	67.9	57.0	42.5	34.8	53.1
Lower Lakes:													
Buffalo, N. Y	24.0	26.6	29.4	40.1	53.6	63.8	68.1	68.5	63.9	51.5	38.6	30.2	46.5
Oswego, N. Y	25.7	28.9	31.6	41.9	54.9	63.7	68.7	68.6	63.5	51.4	39.4	30.4	47.4
Rochester, N. Y	24.3	27.3	30.3	42.0	56.3	64.9	68.8	69.0	65.1	50.9	37.6	29.0	47.5
Erie, Pa	27.4	30.7	33.1	43.6	57.5	66.3	70.3	69.7	64.9	54.5	40.9	32.7	49.2
Cleveland, Ohio	25.9	30.7	33.3	44.2	58.3	67.0	70.4	69.4	65.2	54.2	39.5	30.7	49.0
Sandusky, Ohio	27.4	32.0	35.1	45.6	60.7	68.5	72.2	71.4	66.4	55.0	40.6	31.8	50.8
Toledo, Ohio	27.3	32.0	36.0	46.9	60.4	69.3	73.1	71.4	66.2	54.8	40.8	31.8	50.8
Detroit, Mich	25.8	31.0	34.6	45.6	58.8	67.8	71.2	70.3	65.2	54.3	40.0	31.2	49.7
Upper Lakes:													
Alpena, Mich	18.0	19.6	24.1	36.1	49.2	59.0	64.3	64.0	58.0	46.3	32.2	23.6	41.2
Escanaba, Mich	14.0	16.3	22.6	35.7	50.1	61.0	65.3	64.1	57.6	46.3	30.7	21.0	40.5
Grand Haven, Mich	25.2	27.9	31.8	43.2	56.0	64.5	68.3	67.7	62.5	51.6	38.4	29.6	47.2
Mackinaw City, Mich	14.8	14.0	20.2	36.5	46.2	59.9	61.9	62.1	57.8	48.5	35.7	25.5	40.0
Marquette, Mich	16.5	17.7	23.5	36.5	49.5	58.1	63.8	63.2	56.9	46.0	30.8	22.2	40.5
Port Huron, Mich	21.5	25.5	29.0	40.1	53.3	62.8	67.0	67.3	62.3	50.2	35.6	26.9	45.1
Chicago, Ill	24.7	29.6	34.8	45.2	57.1	65.1	70.8	71.1	65.3	54.3	39.3	29.2	48.8
Milwaukee, Wis	20.4	25.8	31.1	42.3	54.2	62.1	67.8	68.1	61.6	51.5	35.6	25.0	45.5
Duluth, Minn	10.0	15.2	24.2	37.8	48.3	58.2	65.2	64.1	56.4	45.7	28.3	14.9	39.1
Upper Mississippi Valley:													
Saint Paul, Minn	12.4	18.4	28.6	44.9	58.5	67.0	69.9	69.6	59.9	48.6	31.0	17.6	43.9
La Crosse, Wis	16.0	22.7	31.0	47.0	60.7	69.1	71.5	70.8	62.7	51.4	34.2	21.6	46.6
Davenport, Iowa	22.9	28.9	35.4	49.5	62.0	69.8	73.6	72.7	65.5	54.5	39.1	28.6	50.2
Des Moines, Iowa	20.3	25.8	34.3	49.0	60.9	69.5	72.7	72.0	63.9	52.7	36.4	24.3	48.5
Dubuque, Iowa	19.0	25.0	33.0	47.8	60.6	68.4	72.0	71.1	63.3	52.1	35.8	24.2	47.8
Keokuk, Iowa	24.5	30.6	37.6	51.8	63.5	71.8	76.0	74.7	67.5	55.6	39.9	28.5	51.8
Cairo, Ill	35.9	42.5	47.6	58.8	68.1	75.9	78.5	77.3	70.7	62.2	47.4	39.1	58.5

***Mean temperature** (in degrees Fahrenheit) at stations of the Signal Service, United States Army, for each month and the year, &c.*—Continued.

Stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Upper Mississippi Valley--Cont'd:													
Springfield, Ill	27.8	34.1	40.0	53.0	63.8	71.5	75.3	74.0	67.1	56.7	41.8	31.7	53.0
Saint Louis, Mo	29.7	36.0	42.1	54.9	65.2	73.3	77.0	76.1	70.1	59.0	44.0	34.1	55.1
Missouri Valley:													
Leavenworth, Kans	27.0	32.0	41.0	53.7	64.3	73.5	76.7	75.2	67.8	56.4	41.2	30.5	53.3
Omaha, Nebr	20.5	25.2	34.7	49.7	62.5	72.1	75.5	73.9	65.2	53.5	37.0	23.7	49.5
Bennett, Fort, Dak	10.4	16.2	28.4	43.0	56.5	68.2	70.8	71.8	60.1	46.3	29.2	18.3	43.6
Huron, Dak	9.8	14.4	27.7	43.6	52.8	66.3	68.3	68.6	58.0	46.8	30.4	17.8	41.8
Yankton, Dak	15.9	18.8	29.4	44.8	59.7	69.7	72.4	72.3	61.8	49.5	32.5	19.0	45.6
Extreme Northwest:													
Moorhead, Minn	2.7	5.6	16.8	37.8	53.3	64.8	66.4	66.2	55.4	42.6	23.6	9.7	36.6
Saint Vincent, Minn	6.8	1.5	12.7	33.5	51.2	62.1	63.4	63.4	52.4	39.6	19.3	4.5	33.2
Bismarck, Dak	5.4	10.9	21.2	38.5	55.2	65.3	67.8	67.7	55.8	43.0	25.9	10.0	39.0
Buford Fort, Dak	5.1	10.2	22.1	39.2	53.7	64.3	66.5	66.7	53.7	41.4	24.9	8.0	38.1
Northern Slope:													
Assinaboine Fort, Mont	10.5	13.4	28.6	41.4	52.5	63.5	66.2	65.7	53.2	40.5	28.5	16.9	40.3
Benton Fort, Mont	16.0	19.4	33.4	41.8	53.2	63.2	68.8	68.6	55.5	41.8	30.3	19.9	42.6
Custer, Fort, Mont	17.4	20.4	31.7	44.0	54.5	64.5	70.0	70.0	57.0	45.2	31.5	18.1	43.6
Helena, Mont	15.0	19.7	33.4	41.4	51.6	61.1	66.6	67.2	56.0	42.2	29.6	20.4	42.6
Maginnis, Fort, Mont	17.4	13.6	28.8	37.6	47.6	59.4	61.5	63.5	51.5	39.5	32.9	20.1	38.8
Poplar River, Mont	2.2	4.5	28.7	38.6	55.0	68.7	64.0	66.0	54.4	42.7	23.5	2.0	36.3
Shaw, Fort, Mont	17.3	19.7	32.3	39.5	49.9	59.7	63.2	63.3	52.4	40.6	30.7	21.5	41.2
Deadwood, Dak	21.4	22.3	29.9	38.0	49.0	60.4	62.9	65.4	53.4	43.2	31.2	21.8	41.2
Cheyenne, Wyo	24.9	25.3	32.8	39.8	49.3	60.7	65.7	64.3	55.5	43.5	32.9	27.6	43.5
North Platte, Nebr	21.0	24.1	35.6	46.8	57.9	68.8	72.5	71.7	62.0	49.6	33.8	23.1	47.4
Middle Slope:													
Denver, Colo	30.3	29.5	39.6	47.2	55.4	66.9	72.3	70.5	62.0	50.1	36.5	31.7	49.4
Pike's Peak, Colo	1.8	3.4	7.2	13.0	21.8	33.6	39.7	38.1	30.7	20.5	10.0	6.7	18.9
West Las Animas, Colo	21.9	26.9	40.9	48.4	57.2	68.9	75.1	72.1	65.4	52.5	36.9	26.9	49.2
Dodge City, Kans	27.4	30.8	41.8	52.2	61.6	73.2	76.2	73.9	67.0	54.6	38.0	29.1	52.2
Elliott, Fort, Tex	31.7	35.5	45.7	55.5	63.1	73.2	76.0	74.0	67.9	57.4	41.0	33.8	54.6
Southern Slope													
Sill, Fort, Ind. T	36.9	41.8	50.5	62.2	69.1	78.4	81.1	79.7	72.9	62.6	46.8	37.7	60.2
Concho, Fort, Tex	42.8	48.3	56.9	64.0	71.2	79.9	81.7	79.1	72.9	64.8	51.2	46.1	63.1
Davis, Fort, Tex	42.4	47.8	53.7	59.2	67.0	74.9	75 7	71.0	66.1	60.5	48.9	45.5	59.2
Stockton, Fort, Tex	43.1	48.5	56.1	62.5	70.5	79.1	80.2	76.8	71.0	63.2	50.4	46.3	62.2
Southern Plateau:													
Santa Fe, N. Mex	27.2	31.6	38.6	46.6	55.4	65.9	68.0	64.9	58.0	48.5	35.0	30.2	46.8
El Paso, Tex	43.4	48.9	55.4	63.0	71.5	80.8	81.8	78.0	71.2	62.1	49.5	45.8	62.5
Apache, Fort, Ariz	33.8	37.4	43.5	49.4	56.7	67.0	71.9	69.0	62.1	52.7	40.3	36.5	51.7
Grant, Fort, Ariz	42.1	44.3	50.0	57.0	65.8	76.1	77.3	73.4	70.0	60.7	49.7	45.1	59.3
Prescott, Ariz	34.5	36.0	42.5	49.1	57 0	66.4	71.4	69 1	62.1	51.7	40.9	37.6	51.5
Thomas Camp, Ariz	40.1	46.8	53.2	59.5	68.4	78.9	83.2	80.1	72 7	59.5	48.0	43.3	61.4
Yuma, Ariz	52.8	56.3	62.5	68.3	76.3	84.5	91.4	90.1	82.9	69.9	59.7	55.4	70.8
Middle Plateau:													
Winnemucca, Nev	28.9	30.0	38.9	46.2	53.4	63.5	71.7	69.2	58.7	44.9	33.0	32.4	48.6
Salt Lake City, Utah	27.9	29.7	40.0	47.9	57.1	68.5	74.4	74.2	63.2	49.6	36.1	33.6	50.3
Northern Plateau:													
Boise City, Idaho	28.5	30.6	41.5	49.0	57.2	66.0	72.1	71.1	58.6	47.0	36.6	31.8	49.4
Lewiston, Idaho	31.6	30.4	43.2	50.8	58.6	66.9	72.8	72.0	59.7	49.0	38.0	31.3	50.4
Dayton, Wash	30.9	29.1	42.4	48.9	55.9	63.0	67.4	66.7	58.2	48.1	37.4	30.5	48.2
Spokane Falls, Wash	23.7	24.2	38.6	47.4	55.7	63.8	67.9	67.3	55.7	47.1	35.9	27.6	46.2
North Pacific Coast:													
Canby, Fort, Wash	42.6	38.2	44.0	50.5	53.4	55.2	58.6	60.7	57.6	51.8	42.1	25.8	49.9
Olympia, Wash	37.8	36.9	43.3	48.0	53.1	58.4	61.1	61.5	55.6	48.9	43.2	39.3	48.9
Tatoosh Island, Wash	41.5	36.6	42.7	49.2	50.9	53.3	55.8	56.4	52.9	49.1	46.4	39.4	47.8
Portland, Oreg	39.3	38.0	46.0	51.1	56.6	61.7	64.8	64.2	58.9	52.9	44.4	40.1	51.4
Rosenburg, Oreg	39.8	39.8	45.9	50.5	56.0	61.3	65.5	63.8	59.9	50.1	43.1	41.5	51.5
Middle Pacific Coast:													
Cape Mendocino, Cal	46.6	44.6	48.6	47.8	51.0	54.6	53.8	55.0	57.2	53.3	51.3	49.0	51.2
Red Bluff, Cal	45.3	47.0	53.7	57.9	66.8	74.9	82.3	79.3	72.2	60.2	53.7	46.6	61.6
Sacramento, Cal	45.3	47.7	53.4	56.8	63.4	67.9	71.9	70.7	68.1	59.1	51.1	46.1	58.5
San Francisco, Cal	49.3	49.7	52.5	53.9	57.0	57.9	58.8	58.1	59.2	57.4	54.2	51.2	55.0
South Pacific Coast:													
Los Angeles, Cal	52.0	53.1	54.7	57.6	61.8	65.6	68.2	69.6	67.5	61.8	57.4	54.5	60.4
San Diego, Cal	52.8	53.5	55.1	57.8	61.4	64.5	66.9	68.5	66.3	61.5	57.2	55.6	60.1
Alaska Stations:													
Saint Michael's, Fort, Alaska	5.3	1.6	10.8	19.0	33.2	46.2	53.7	52.5	43.5	31.3	19.0	4.4	26.7
Sitka, Alaska	37.0	32.7	37.0	42.7	46.6	51.2	53.8	55.8	51.9	45.1	42.2	35.2	43.9
Unalaska, Alaska	31.3	33.8	33.0	35.0	39.4	45.8	50.4	50.4	47.0	42.0	34.7	32.0	40.6
Behring's Island, Behring Sea	25.7	28.8	26.8	29.6	36.0	42.2	47.4	51.8	47.2	38.1	30.4	27.4	35.7

The following, owing to want of space, is a selected table. It is given from the standpoint of winter, mainly; so as to show the climate particularly at that season:

MONTHLY AVERAGE OF CLOUDINESS AND HUMIDITY FROM NOVEMBER, 1879, TO NOVEMBER, 1884.

	CLOUDINESS.					HUMIDITY.					Mean Annual.
	January.	February.	March.	December.	Average for 4 Months.	January.	February.	March.	December.	Average for 4 Months.	
Boston	5.4	4.9	5.5	5.5	5.3	71.9	72.7	71.0	71.5	72.0	71.3
New Haven	5.4	5.0	7.5	5.4	5.3	73.3	73.1	68.1	75.6	72.5	72.1
Albany, N. Y.	5.9	5.6	6.1	7.1	6.2	69.2	68.3	65.6	71.8	68.7	64.6
New York City	5.8	5.1	5.4	5.7	5.5	77.4	77.3	71.8	76.8	75.8	72.8
Philadelphia	5.6	5.3	5.5	5.9	5.6	76.4	72.7	69.5	74.9	71.1	72.3
Baltimore, Md.	5.6	5.3	5.4	5.3	5.4	71.0	67.0	63.3	68.4	67.4	66.1
Washington City	6.0	5.6	5.5	5.7	5.7	78.5	72.3	68.5	75.2	73.6	71.3
Jacksonville, Fla.	4.7	4.6	3.9	4.6	4.4	76.6	71.8	65.5	76.0	72.5	73.4
Sanford, Fla.	4.5	3.7	4.0	3.7	4.0	78.2	75.0	72.9	77.8	76.0	76.7
Galveston, Tex.	5.5	5.4	5.2	5.4	5.4	82.5	80.6	78.3	79.6	80.2	77.0
Brownsville, Tex.	5.8	5.6	5.5	5.8	5.7	82.0	81.1	80.6	82.9	81.6	79.8
Chattanooga, Tenn.	6.3	5.9	5.3	5.9	5.8	74.7	67.7	63.7	72.2	69.6	71.1
Knoxville, Tenn.	6.4	5.7	5.3	5.4	5.7	79.4	70.2	66.4	76.2	73.5	71.9
Nashville, Tenn.	7.5	6.1	5.7	6.3	6.1	77.6	71.5	68.1	75.7	73.2	71.1
Louisville, Ky.	6.3	6.0	5.9	6.3	6 1	74.1	68.2	63.6	71.4	69.3	69.0
Indianapolis, Ind.	6.3	5.9	6.2	6.4	6.2	73.0	71.3	65.6	74.4	71.7	68.0
Cincinnati, O.	6 4	6.1	5.9	6.5	6.2	74.6	70.7	64.7	72.4	71.5	67.7
Columbus, O.	7.0	6.5	6.5	7.2	6.8	74.4	71.1	65.7	74.6	71.4	67.7
Pittsburg, Pa.	7.1	6.6	6.5	7.1	6.8	78.2	73.4	68.8	77.7	74.5	70.0
Buffalo, N. Y.	7.7	6.5	6.3	8.2	7.2	80.6	78.6	75.9	78.2	78.3	74.7
Rochester, N. Y.	7.9	6.9	6.7	8.4	7.5	79.6	78.8	76.7	80.6	78.9	72.6
Cleveland, O.	7.4	6.5	6.6	7.6	7,2	80.0	77.0	75.0	80.0	78.0	71.9
Toledo, O.	7.0	6.4	6.4	7.3	6.8	76.2	73.4	68.5	75.8	73.5	70.1
Detroit, Mich.	7.0	6.1	6.3	6.9	6.8	77.4	76.8	73.3	77.2	76.2	71.1
Grand Haven, Mich.	7.9	6.5	6.1	8.1	7.1	80.4	80.5	77.1	80.9	79.9	75.8
Chicago, Ill.	5.7	5.5	5.8	6.0	5.7	73.1	70.0	68.9	74.8	71.7	70.8
Milwaukee, Wis.	6.0	5 8	6.0	6.3	6.0	79.3	78.1	75.6	79.6	28.1	75.0
Duluth, Minn.	5.1	5.5	4.9	5.8	5.3	77.2	73.8	71.6	78.9	75.1	74.2
St. Paul, Minn.	4.9	4.9	5.2	5.1	5.1	71.1	71.5	68.9	72.7	71.5	70.9
La Crosse, Wis	4.8	4.8	5.3	5.4	5.7	72.0	70.0	69.4	72.1	70.9	68.3
Davenport, Iowa	5.5	5.5	5.7	6.1	5.7	65.8	66.7	64.7	72.1	67.3	67.5
Des Moines, Iowa	4.8	5.0	5.4	6.0	5.3	68.5	68.3	67.3	71.4	68.9	69.5
Dubuque, Iowa	4.7	5.4	5.9	6.2	5.5	66.1	66.5	65.5	68.5	66.6	66.9
Keokuk, Iowa	5.6	4.9	5.5	5.8	5.4	74.9	71.5	69.1	75.4	72.7	70.2
Cairo, Ill.	6.1	5.7	5.4	6.3	5.9	77.5	73.2	67.1	74.9	73.2	72.4
Springfield, Ill.	5.7	5.2	5.5	6.3	5.7	71.3	68.9	64.8	70.8	68.9	67.7
St. Louis, Mo.	5.4	5.4	5.4	6.0	5.5	76.9	76.2	72.4	76.7	75.5	73.0
Leavenworth, Kan.	5.0	5.0	5.1	5.3	5.1	70.7	67.6	63.6	71.6	68.2	66.8
Omaha, Neb.	5.0	4.9	5.4	5.2	5.1	71.1	69.7	67.1	71.1	69.7	68.7
Fort Assinaboine, M. T.	5.4	4.8	4.8	4.9	5.0	65.0	67.0	66.7	62.8	65.4	60.0
New Orleans, La.	5.3	5.0	4.9	5.5	5.2	73.4	71.1	68.9	73.1	71.6	71.9
Los Angelos, Cal.	3.1	4.0	4.5	3.2	3.4	62.7	65.0	72.5	67.1	66.8	68.2
San Diego, Cal.	4.1	4.4	4.8	4.5	4.4	65.6	68.5	74.8	69.6	69.6	71.9
San Francisco, Cal.	4.7	4.7	4.6	4.6	4.6	75.6	73.5	73.6	79.9	75.6	76.8
San Antonio, Texas*						69.9	62.8	62.0	69.2	65.5	69.2
From September, 1872, to and including October, 1879.											
New Orleans, for same period						71.0	66.9	69.7	72.0	69.9	70.3

*San Antonio is not given in the above table of humidity.

[The table embracing the above points is found on the table concerning Shreveport, found elsewhere.]

The following is kindly furnished by Capt. Kerkam:

"THE CLIMATE OF NORTH LOUISIANA.

"There are few, if any States, in the Union, that possesses a milder or more genial climate than Louisiana. This has been demonstrated repeatedly within the past year by a compilation and publication of statistics covering all sections of the United States and the greater portion of Europe, in the interest of the immigration movement to this State. Of North Louisiana but little more can or need be said than has already been placed on record. The

only difference between the climate of tho northern and southern sections of the State, is a slight increase in the range of temperature as we leave the Gulf coast, and atmosphere less humid, and a rainfall averaging about four inches less annually. Prior to the establishment of the Louisiana Weather Service, we had no complete records for the varions parishes, so that in making a comparison of temperatures, etc., with Northern States, the year of 1888 will alone be considered.

Table showing the temperatures, percentage of sunshine, average number of rainy days, average annual rainfall, and dates of first killing frosts in North Louisiana, Tennessee, Ohio, Indiana, Iowa, Michigan, for the year **1888.** *(Compiled from statistics obtained from the Directors of the various State weather services.)*

SECTION OR STATE.	TEMPERATURE. DEGREES—FAHR'T.				Percentage of Sunshine.	Average Number of Rainy Days	Average Annual Rainfall—Inches.	Average Snowfall.	Greatest Snowfall.	First Killing Frost.
	Annual Mean.	Highest.	Lowest.	Range.						
North Louisiana.	65	102	13	89	48	94	48.68	T	T	November 11th.
Tennessee,.....	58	104	2	102	50	101	48.29	4	11	September 13th.
Ohio.....	50	102	—15	117	....	125	39.64	.....	.....	September 3rd.
Indiana.....	51	106	—19	125	48	101	41.77	.....	.....	August 23rd,
Iowa	46	96	—27	123	51	124	36.75	.....	.....	September 1st.
Michigan	44	101	—36	137	45	107	28.68	.....	39	.....
Minnesota.....	39	100	—54	154	....	90	27.18	.....	.....	August 9th.

From the foregoing table it will be seen that, during the past year, the range of temperature for North Louisiana was but 93 degrees against 102 degrees for Tennessee, 117° for Ohio, 125° for Indiana, 123° for Iowa, 137° for Michigan, and 154° for Minnesota.

The lowest temperature, 13°, was reported from Farmerville, La.; the remaining stations in North Louisiana reporting minimum temperatures from 15 to 21°. Supposing 1888 to have been nearly an average year for the States mentioned in the table, where are the conditions to equal them? Surely not where the killing frosts of fall occur as early as August and September, or where the average number of rainy days exceed those of North Louisiana by from 10 to 30, or where the temperature falls to zero and even 54° below that point. If we have the moisture in the air accredited to us, why is it that scientific observations fail to bear it out, and that the record for North Louisiana as regards humidity is but one per cent below that for the extreme Northwest, and less than that recorded for Tennessee, Northern Georgia and the majority of the States in which signal stations have been in operation for the past dighteen years?

The average rainfall for 1888, as shown in the table, was 48.88 inches, less than half an inch more than for Tennessee. This amount of rain fell on 94 days, or an average of about half an inch of rain every four days. Is this too much to keep crops in good condition? We had between three and four inches of rainfall in January and February, about six inches in March, over two inches in April, and between four and five inches in May, five inches in June, nearly three inches in July, between six and seven inches in August, about an inch in September, between two and three inches in October, two and a quarter inches in November, and between four and five inches in December; the general average rainfall being four inches per month, which is, as a rule, evenly distributed.

R. E. KERKAM,
Signal Corps Director."

If my article were not so long, I would give a table to show the rainfall or precipitation in those localities where a man says that he can stand 105° or 110°, Fahronheit, in summer, better than in Louisiana, 96°; the country where rain, sometimes, falling never reaches the earth, because the thirsty air drinks it; where fruits, vegetables, flowers are not (except by irrigation); where "the field eludes the tiller's toil" (if tho latter be fool enough to try agriculture); where the mirage is the phantom of water; where drought blights even hope. But I simply rest on the fact of our rainfall, and a small table, which certainly is an admirably compiled one, by way of illustration:

From a table prepared for the *Daily States*, by Capt. Kerkam, I extract these data:

	Temperature. Degrees Fahrenheit.				Average precipitation — Inches and hundredths.		Average annual cloudiness. Scale of 0 to 10.	Mean relative hum'd'y Per cent.	
	Highest.	Lowrst.	Average winter.	Average annual.	Winter.	Annual.		Winter.	Annual.
New York City	100	— 6	31	51	10.66	43.69	5.1	73	71
Cincinnati	104	—12	35	56	11.10	42.36	5.2	72	66
Chicago	99	—23	27	49	6.69	37.10	5.1	74	71
Saint Paul	100	—39	16	44	3.30	28.82	5.0	73	70
Bismarck	105	—40	7	39	1.95	20.10	4.8	77	70
Portland, Oregon	99	3	41	52	22.80	51.49	6.0	79	72
San Francisco	95	34	52	56	13.39	23.82	4.1	75	75
Los Angeles	108	28	54	60	9.53	17.29	3.4	65	68
Santa Fe	96	13	30	48	1.99	14.14	3.7	53	44
Denver	105	—29	30	49	1.88	15.06	3.8	55	49
Saint Louis	106	—22	34	55	7.57	38.76	4.9	71	68
Alanta	98	2	47	62	17.86	55.66	5.0	68	67
Jacksonville	104	15	56	70	10.30	57.06	4.4	73	73
Galveston	98	11	55	70	11.49	52.22	.4.6	79	76
*New Orleans	97	15	56	69	13.16	56.50	4.8	71	72

*Rainfall record from 1836 to 1888.

The above table is compiled from Signal Service records covering period from November 1, 1880, to December, 1887, inclusive.

The lower rainfall of New Orleans is established by the painstaking research of Capt. Kerkam, who has gone into investigations outside of published data.

I now append some statements from the last United States census:

Prof. Hilgard, in his article on Louisiana, in Vol. 5, Tenth Census, speaks thus of the climate of the State:

"Owing to its nearness to the Gulf of Mexico, and the prevalence of winds from that direction, the climate of Louisiana is much less extreme than that of the States lying further North—the summer heat being less oppressive, though more prolonged, and the winter's average temperature 52.8° at New Orleans, 45.4° at Shreveport, very mild, though liable at times to sudden and severe 'cold snaps,' brought on by northerly storms, which restrict the culture of tropical fruits on a large scale to the immediate neighborhood of the Gulf coast. On such occasions the temperature may fall to 17°, even at New Orleans, and to 15° in Northern Louisiana. November, December and January are the coldest months, June, July and August the hottest; the temperature ranging from 74° to 98°, with a mean of 81 6 at New Orleans, while at Shreveport the range of temperature within the same months is from 64° to 95°, with a mean of about 81°.

"The rainfall at New Orleans amounts to nearly 73 inches annually;* at Shreveport about 47 only, but increases slightly toward the Mississippi Valley. At New Orleans the rainfall is most copious during the three hottest months, and somewhat less during the three coldest; during both, about 40 inches of rainfall is received, the rest of the annual precipitation being more or less distributed over the spring and autumn."

The above statement requires modification, as the winter of 1885-6 (the coldest I can discover), showed thus: for New Orleans, 15°; for Shreveport, 1°. This weather, for both locations, was in January, 1886.

Thus I have given testimony from the three highest authorities possible: The United States Signal Service Reports, the United States Census, and the later researches of Capt. R. E. Kerkam, Director of the Signal Service of Louisiana. Outside of the testimony of Sacred Writ, where can more authoritative proofs be adduced in behalf of any fact, than are produced here in attestation of the glorious verities of the climate of Louisiana? If, after all the testimony here collated, doubters are still found, they are not amenable to conviction, and are wedded to unbelief.

Yours truly, M. B. HILLYARD."

We have dwelt with great particularity upon the climate of Louisiana. It is, perhaps, the most vital of all topics; because even health itself, the dearest of all considerations to almost everyone, is dependent upon climate. Then, there is no State in the Union, whose climate is so utterly misjudged and underrated as that of Louisiana, and it is a duty, as well as a pleasure, to endeavor to disabuse the public mind, and to commend the loveliness of our climate, and to command for it public appreciation. Then, more and more, the South (Florida and California,

*Capt. Kerkam, by investigations of the most recondite character, reduces it to 56.50.

particularly), is filling up with climate-hunters: persons of wealth, culture, impaired health, who bring immense benefits to the places where they settle. Louisiana desires such. She offers attractions that neither Florida nor California can surpass (if they or either can equal), and we beg such home-seekers to investigate the charms of Louisiana's climate before making homes elsewhere.

THE PARISHES OF LOUISIANA.

EXTENT, CULTIVATION, POPULATION.

PARISH.	Area, Square Miles.	Acres in cultivation.	Population.	PARISH.	Area, Square Miles.	Acres in cultivation.	Population.
Ascension	373	37,908	16,896	Morehouse	760	57,379	14,206
Assumption	327	36,511	17,010	Natchitoches	1,290	58,969	19,722
Avoyelles	843	84,787	16,747	Orleans	187	4,436	216,140
Baton Rouge, East	395	40,026	19,986	Ouachita	640	48,847	14,723
Baton Rouge, West	210	26,753	7,667	Plaquemines	930	36,908	11,575
Bienville	856	45,048	10,442	Pointe Coupee	575	56,594	17,799
Bossier	773	69,420	16,045	Rapides	1,498	76,149	23,597
Caddo	852	95,409	26,305	Red River	386	33,930	8,573
Calcasieu	3,400	14,003	12,448	Richland	578	31,409	8,444
Caldwell	535	18,267	5,770	Sabine	1,008	18,524	7,344
Cameron	1,545	5,743	2,415	St. Bernard	680	11,850	4,405
Carroll, East	400	56,793	12,147	St. Charles	284	21,177	7,161
Carroll, West	380	10,071	2,776	St. Helena	413	28,285	7,504
Catahoula	1,350	29,823	10,288	St. James	308	54,675	14,714
Claiborne	765	126,000	18,857	St. John	190	29,213	9,686
Concordia	620	45,816	14,914	St. Landry	2,276	137,370	40,002
DeSoto	856	82,239	15,605	St. Martin	618	39,876	12,662
Feliciana, East	450	53,118	15,132	St. Mary	648	66,326	19,891
Feliciana, West	302	21,115	12,809	St. Tammany	923	3,895	6,887
Franklin	550	22,104	6,495	Tangipahoa	790	21,021	9,638
Grant	578	24,414	6,188	Tensas	612	78,679	17,824
Iberia	536	49,604	16,686	Terrebonne	1,806	40,403	17,956
Iberville	646	42,112	17,600	Union	880	62,661	13,526
Jackson	576	26,604	5,328	Vermilion	1,226	25,330	8,735
Jefferson	395	19,767	12,166	Vernon	1,540	16,303	5,160
Lafayette	262	62,704	13,236	Washington	668	18,224	5,190
Lafourche	1,024	44,802	19,113	Webster	594	42,402	10,005
Livingston	575	10,467	5,258	Winn	954	22,548	5,846
Lincoln	485	108,084	11,075				
Madison	670	48,395	13,908	Total	44,426	2,507,935	940,103

Acadia, lately dissevered from South Saint Landry parish, is not computed with reference to above statistics; no authentic data being obtainable.

We now proceed to give descriptions of various parishes, and endeavor to observe the classification of Professor Lockett, and therefore place the following in his category or area of "Good Uplands."

The following is taken from a "pamphlet descriptive of the parishes in North Louisiana:"

NORTH LOUISIANA.

North Louisiana is rich in annals and reminiscences of Indian life and warfare, of hardships, privations and endurance of fortitude, and deeds of heroism and valor, of pioneer struggles, which, if written, would rival

the thrilling tales of fiction, but as our task is to speak sober words of the present, we shall skip the romantic and glorious past.

The inhabitants of North Louisiana are immigrants, or the offspring of immigrants, from Virginia, Kentucky, Tennessee, Georgia, North and South Carolina, and from other States in the Union, and are generally of English, Scotch and Irish descent. As a class, the people of North Louisiana are thrifty, enterprising and wide awake, and are noted for their hospitality.

The parishes described in this pamphlet are situated in the nortwest portion of the State, and are alphabetically arranged as follows: Bossier, Bienville, Caddo, Claiborne, DeSoto, Jackson, Lincoln, Natchitoches, Ouachita, Red River, Sabine, Union and Webster.

Shreveport and Monroe are the largest towns in this section.

Few States in the Union possess a greater diversity of surface-soil or a milder and more genial climate. The lands are noted for their wonderful fertility, particularly the lands nearest the rivers, bayous and lakes, which are classed as bottom and front lands. The lands called front lands by planters, are moderately sandy and easily worked. The back lands, extending beyond streams to the hills, are generally stiff, sticky and more difficult to break up, but yield marvelous crops when cultivated intelligently.

In North Louisiana the hill lands predominate, and are mostly tilled in fields ranging from forty acres and upwards. Throughout the uplands, though there are not a great many ever-running creeks, water is found in abundance for man and beast, and of the most desirable quality. The people residing in the hills or uplands are generally in good circumstances. By diversifying their crops, and giving attention to stock, they are self-sustaining, prosperous and happy.

The character of uplands soil is sandy, of a gray and reddish cast, with a clay subsoil. These lands are fertile, and yield astonishing returns when assisted with manures and fertilizers. If the same care and the same amount of labor devoted by farmers in the Eastern and Western States on their acres, were bestowed on these lands, they would equal, if not exceed the products of the low and bottom lands, which are cultivated at a greater expense, and held at higher prices. The lands on the streams comprise thousands of acres, which are divided into large plantations, and devoted to raising cotton, chiefly by negro labor. As a rule, the river planters depend upon St. Louis and other markets for their supply of corn and bacon. Lands of this kind are worth from $10 to $50 according to the improvements, and immunity from overflow.

The price of the hill or uplands ranges from $1 to $5 per acre, and higher, with expensive improvements.

There are thousands of acres of government land which can be entered by complying with the homestead law, at from $1 25 to $2 50 per acre.

The railroads, also, have large tracks of very desirable and fertile lands, which can be bought at $2 per acre and upwards.

The products of the hills or uplands are cotton, corn, tobacco, sorghum, sweet and Irish potatoes, oats, rye, and millet for forage. The various grasses grow luxuriantly, and yield remunerative crops.

Peaches, pears, apples and the various small fruits grow in great perfection. Grape culture has been tried with marvelous success. Early vegetables of all kinds are raised with very little trouble and with profit.

The staple product of the country is cotton, which commands a ready sale at all seasons of the year when placed on the market. But the people are gradually diversifying their acreage, especially in the hills.

Before and during the great struggle between the States, the majority of planters and farmers had flour and wheat of their own raising. There being no mills at hand now, wheat is only cultivated to a limited extent. A flour mill has been projected for Shreveport, and is now under favorable consideration.

In the hill counties in eastern and northern Texas, adjacent to Caddo parish, which are not superior in fertily to ours, wheat, rye and other small grain yield abundant returns. Tho same results can be obtained in this section, and only require the presence of increased white population to instill new life into this industry.

Nature has been beneficent, and done wonders for North Louisiana, but her magnificent resources, still dormant, await further development. Instances could be cited where hill lands in Caddo and adjacent parishes have been made to produce from 80 to 135 bushels of corn to the acre, and have yielded from three-fourths to a bale of 500 pounds lint cotton, worth from $40 to $45 a bale.

Within the past five years, particular attention has been given to blooded stock, and there are a number of fine herds of Jersey, Holstein and short-horn cattle in this section that will compare favorably with the best herds in many of the Western States. Pedigreed horses, mules, hogs and high bred poultry have not escaped attention, and the possibilities of the future in this department are assured by the encouraging and gratifying success attained.

The saw mill industry is yielding a large income of wealth to those engaged in it, and it is yet in its infancy. The vast forests of short and long leaf pines, covering millions of acres in the virgin state, are awaiting the investment of capital.

The timber throughout North Louisiana is diversified, according to location, but it may be said to comprise the varieties known as hickory, red, white, black and post oaks, ash, walnut, cypress, beech, sweetgum, cotton wood, hackberry, sasafrass, persimmon, holly and the beautiful magnolia, always attractive and admired, nearly all of which are adapted to manufacturing purposes.

The rivers, lakes and bayous abound in fish of many varieties, such as perch, trout, buffalo, cat, etc.

Tho free public school system is not yet all that could be desired, but is rapidly improving and will receive a new impetus from increased population. The fund from this source affords free schools for five months in the year in the country, and for eight months in Shreveport. This fund is usually eked out by private means, and thus very fine school facilities are afforded.

The spires of churches of all denominations rear their heads toward heaven, and in this land of promise, if not of milk and honey, unlimited liberty and tolerance are assured in the observance of religious faith.

This section, of which Shreveport is the commercial metropolis, has railroad connections with all points in the United States, Canada and Mexico.

This is unquestionably an inviting section of country, and when its advantages in soil, climate and health are considered impartially, it is almost impossible to speak too strongly in their praise.

Immigrants will receive a hearty welcome and kind treatment from the citizens of North Louisiana.

CADDO PARISH.

That fair section of Louisiana, Caddo parish—next to Orleans, the wealthiest parish in the State—may certainly claim much in its especial favor, and it is with pleasure that we write of its advantages and resources.

Caddo parish is situated in the extreme northwestern corner of the State, with fifty-eight miles of western boundary on Texas, and less than fourteen miles northern boundary on the Arkansas State line. Its natural eastern boundary is Red River, which, in its meanderings, gives Caddo parish a magnificent river frontage of 183 miles. It is bounded on the south by DeSoto and Red River parishes and Wallace lake, a distance of forty-four miles.

Though crossed and penetrated by many bayous as large as Red river, and an unusually large lake through the center, it represents a landed surface of 560,000 acres, of which 106,200 acres are in cultivation, and 453,800 acres are uncultivated. This surface is more varied than can be found anywhere in the same limits, including the fertility of the bottom lands, pine hills with fine clay subsoil, the less hilly section of hard woods with a black soil of usual producing qualities, the sandy soils for fruits, vegetables, melons and potatoes, a considerable prairie strip, which by many is considered the garden spot of the section, and last, the marshy belt adjacent to the river, lakes and bayous, making every character except mountainous and hard pan soils. The alluvial lands constitute nearly one-half of the acreage.

Good titles are guaranteed all purchasers of land and real estate.

Having heard so much of North Louisiana and Caddo parish, the reader will naturally desire to know more of this country. As he may be unprepared to come at present, let him then imagine that he is on a tour of inspection through the parish in company with a friend. They have started from Shreveport, and see, as they journey northward along Red river, plantations ranging from 100 to 500 acres and over, under fence. Cotton is the principal crop cultivated on these broad acres, which rival the great prairies of Illinois in fertility of soil. Now, let it be remembered that cotton is to the planters and farmers in this section and the South, what wheat is to the farmers in the Western States. It is the main crop upon which money is realized; it is the cash staple always in demand at market quotations.

The plantations and large farms on the streams are so especially adapted to the cultivation of cotton, that the planters, with few exceptions, insist that it is cheaper to raise cotton and buy corn than to divide their acreage between a mixed crop. The average yield, on alluvial and river land, is from three-fourths to a bale of lint cotton to the acre, and a greater yield is obtained in propitious seasons. These lands are mostly cultivated by negroes, to whom they are rented for a stipulated share of the crop, or for an annual rental in money.

Along the river banks, and running back to the hills, are thousands of acres of wooded lands, which some day will be brought into a high state of cultivation. The lands are very fertile, and can be purchased at from $10 to $50 per acre. As we skirt Red river the scenery, although not as majestic, romantic or attractive as along the Hudson, is not devoid of interest. There are picturesque landscapes which are very pleasing to the eye.

We have now reached the Arkansas and Texas line, and turn towards the uplands. As we move southward, we travel through a country with a rich, sandy, loamy soil, abundantly watered, and timbered with the various kinds of forest trees mentioned in the article on North Louisiana. Instead of large plantations, we now see small farms ranging from 40 to 160 acres. The upland country is not thickly settled, and there is room for thousands of families who can obtain good lands at reasonable prices. Good springs are common and numerous, and the best of water is obtained by digging wells, ranging 25 to 75 feet in depth. In the hill or upland section of the parish, there are not nearly so many negroes as on the plantations along the streams, and they are rapidly drifting to the

low lands. The hill or uplands are settled by enterprising, intelligent or industrious people from many States. The population is representative, and somewhat cosmopolitan in character, and very hospitable.

In the northern section of the parish are from 15,000 to 20,000 acres of government lands subject to entry under the homestead law. Some of these lands are well situated, heavily timbered and very desirable. There are other lands unoccupied, which belong to private corporations, and may be obtained on easy terms.

The Caddo prairie country, the first section settled in this parish, was a garden spot, until the formation of the great raft in Red river, which impeded navigation and submerged these lands in the spring months, rendering them unfit for cultivation. The raft was removed in 1873 by Lieutenant Woodruff, an engineer in the United States army, who died in the fall of that year. Since then a large area of these lands has been reclaimed, which are now in a high state of cultivation, and yield readily one bale of cotton, and from 50 to 100 bushels of corn to the acre. The Caddo prairie is about three miles wide and fifteen in length. In the past few years, great improvements have been made in opening up new farms. In this section there are State lands in the bottom and low places. The best locations have been taken and the remainder is worthless, except for the timber. Such lands can be bought for 75 cents per acre, but are not the kind desired by immigrants.

As we leave Caddo Prairie, we continue our journey through the hills. There is no great variation in the soil, and the general appearance of the country is alike. We need not speak of the water courses which we have crossed, and which abound in trout, perch and other varities of fish, nor is it necessary to devote time to deer, turkey, ducks and other wild game met at various points. Having traveled an almost circuitous route, we find ourselves at the southern limits of the uplands in this parish and turn towards Red river. As we ascend this stream, coming in the direction of Shreveport, we travel through a country similar to that bordering the river above the city. These lands are all very fine and good producers. We are now in Shreveport and will sit down and chat a little.

"What is your impression, and what do you think of the country?"

"Very favorable," is your answer. It could not be otherwise; in fact, there is no better country for men with limited means, for men of industrious and economical habits.

"What will these hill or uplands produce?"

"The uplands, when manured or assisted by fertilizers, will yield from 30 to 60 bushels of corn to the acre; on old land, without fertilizers, the average yield is about 15 bushels. A bale of cotton to three or four acres is perhaps a fair average, but with fertilizers the yield may be increased to a half and three-quarters of a bale, and by an intensive system of farming to two bales to the acre.

"The uplands are also adapted to the growth of tobacco, oats, wheat, rye, peas, beans, Irish and sweet potatoes, sorghum and all kinds of vegetables. It is a fact that sweet potatoes yield from 150 to 300 bushels to the acre, selling at from 50 to 75 cents per bushel. Irish potatoes are very prolific, ranging from 100 to 200 bushels and over to the acre, worth from 50 to 75 cents per bushel, according to the time of the year. Apples, peaches, pears and nearly all the fruits of the Northern States, are raised in this parish with profit. The various grasses yield abundantly, and when gathered for hay and forage add to the revenues of the farm.

"Farmers in the hills or uplands, are prosperous and happy. They diversify their crops—but not to the extent they should do—which in most instanees, they cultivate or superintend in person. Being self-

reliant, they are generally in good financial circumstances. All the white men engaged in agricultural pursuits are as robust and healthy as any class of farmers in the North and Northwest. The industrious white man can, by practicing the same rules of economy observed in the North, soon accumulate a fair income, which may be increased by judicious handling or investment. Hundreds of white men, farming in this parish—many being from the North—will willingly verify the statements."

It may appear strange, but it is nevertheless true, that over half of the cotton raised in the South is cultivated by white labor. A white man can till his acres in the midsummer without detriment to health. It is a very rare occurrence when a person is afflicted with sunstroke. The heat of a summer's day is generally tempered by a pleasant breeze and refreshing airs, which combine to cool the earth, tone and invigorate the growing plants, as well as the human system. The summers in this section are not enervating and debilitating, and there is not that sultriness that prevails in the North and Northwest during the heated period. In this section the white man is prepared for active work at dawn, feeling invigorated after a peaceful night's repose.

There is no greater error than that which prevails with regard to the health of white men doing outdoor work in Louisiana, and especially in this section of the State. There are hundreds and thousands of people everywhere in this State, who have worked continuously in the field, for years, without injury to their health.

Among the hill farmers, especially, there is a strong tendency towards mixed husbandry, and particular attention is being given to fine stock and dairy products. This industry is yet in its infancy, but growing rapidly.

The country is well adapted to stock raising and dairying, and contains all the elements necessary to make these a grand success. Hogs and sheep are profitable, and need very little attention.

Appreciating the value of good stock, a number of public spirited citizens, a few years since imported cattle and blooded horses and other stock. The success attained has been surprisingly gratifying. The cattle comprise the Jersey, Durham and Holstein breeds, and were secured at a cost of thousands of dollars from the most reliable breeders in the United States. At the annual exhibition of the North Louisiana Fair Association, in the fall of 1886 and 1887, there was in the area as fine a lot of blooded cattle, horses and other stock as were ever seen anywhere in this country. Native raised mules compared favorably in size and general appearance with the products of Missouri, Kentucky and Texas.

As an item of interest it may be said that in the Shreveport market, from one thousand to twelve hundred mules are sold annually at prices ranging from $80 to $175 per head. Within a radius of fifty miles, planters pay annually from $130,000 to $160,000 for mules also. The farmers, recognizing their mistake in the past, are now gradually working out a remedy by giving time to the rearing of stock of every description. The possibilities in this industry are unbounded and offer a wide field for improvement and money making. This is a grand section, and there are good openings for the thrifty and industrious classes.

SHREVEPORT.

The city of Shreveport, the county seat of Caddo parish, is situated on the west bank of Red river, 540 miles above its mouth. It is the metropolis of North Louisiana, the second largest, busiest and most populous city in the State.

Shreveport is the natural emporium for all the vast section of country

in Eastern Texas, Southwestern Arkansas, North Louisiana and all the upper and a portion of the lower Red river valley; a scope of country whose fertility yields a wealth of agricultural products whose value is unequaled in any State of the Union. From its inception, Shreveport, owing to its natural advantages, has been regarded, and justly, too, an important commercial railroad center, and is growing steadily.

METEOROLOGICAL DATA

of Shreveport, La., as deduced from 17 years of observations from official records.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
Mean temperature	45.1	51.3	58.5	65.9	73.7	80.5	83.0	82.0	75.3	65.3	54.4	48.8	65.3
Maximum temperature	78	80.5	90	93	101	104	107	105	101	95	86	79	107
Minimum temperature	1.3	15	26	32	47	55	64	58	47	31	18	10	1.3
Mean relative humidity	73.5	70.0	66.9	67.1	69.9	70.6	72.1	70.5	71.8	72.8	72.1	73.3	70.7
Mean cloudiness	5.8	5.5	5.0	4.9	4.5	4.5	4.0	3.5	3.7	3.7	4.5	5.4	4.6
Average number of clear days	8.6	8.1	9.7	10.2	10.1	9.4	12.1	13.7	14.6	15.1	11.3	10.1	11.1
Average number of fair days	10.1	10.1	11.7	12.2	14.4	16.0	14.6	14.6	9.9	10.4	10.2	9.4	12.0
Average number of cloudy days	12.3	10.1	10.7	7.0	6.6	4.6	4.3	2.7	5.6	5.4	8.5	11.6	7.4
Average number of rainy days	11.8	10.4	10.2	9.9	8.2	9.5	10.0	6.4	8.2	6.9	8.8	10.6	9.2
Average rainfall	4.98	4.74	4.67	5.68	4.80	3.48	3.90	2.05	4.39	3.68	4.84	5.18	5239
Prevailing wind	S	S	S	S	S	S	S	SE	SE	SE	S	S	S

BOSSIER PARISH.

The parish of Bossier was created by Act of the Legislature of February 12, 1843, hitherto being that part of the parish of Claiborne particularly described in the act of incorporation. It remained intact, as originally incorporated, until 1871, when a part of her territory was cut off and given to Webster parish.

Bossier parish lies in the extreme northwestern part of the State, fronting Red river on the west for about seventy-five miles, and only separated from Texas by the parish of Caddo. On the north it is bounded by the State of Arkansas. In area it contains 753 square miles. Oak uplands, or what is commonly known as the "hills," in contradistiction to the alluvial lands, 553 square miles, of which about 80 square miles are "red lands," and the remaining 220 square miles are alluvial lands.

"The course of empire takes its way," so these lands have been chiefly settled up by people from the Carolinas, Georgia, Alabama and Mississippi. According to the census of 1880, the population was a little over 16,000. It now numbers more than 20,000.

The parish is traversed from east to west by the Vicksburg, Shreveport and Pacific railroad, and from north to south, from the Arkansas line to Shreveport, by the St. Louis and Arkansas Southern railroad, thus affording easy access to the markets of the North and East by two competing lines.

An almost unbroken line of levees protects the river lands from Benton to Red River parish. In consequence of these levees, and the removal of the raft, the channel of the river has been widened and scoured out by the increased velocity of the current, and the possibility of the recurrence of the overflows of 1866 and 1867 happily reduced to the minimum.

Bossier is conspicuously a cotton parish; her soil and climate being peculiarly adapted to its growth. Here the cottonwood—the true index of the cotton belt,—springs up with the rapidity, and fights for life with the tenacity, of the "old field pines" of Carolina and Georgia.

The alluvial lands average about seven miles in width, and are equal to the best lands in this or any other country.

The hills—that is all lands other than the alluvial lands, and a term often misleading strangers,—are rich and productive, and timbered with exuberant abundance; they produce grains and grasses of all kinds. The common, rich with native grasses and marked with frequent water courses, offer splendid and inexhaustible pastures to those who may feel disposed to engage in stock raising. Our climate is mild and healthful, and so far, we have escaped the storms and droughts that have wrought such destruction among our less fortunate fellow-citizens in other States.

Bossier is a parish of exceptional prominence as an agricultural country, and ranks fairly as a timber and cattle country. Nothing is raised but cotton and corn in the bottoms, but the hill farmer raises a diversified crop for home consumption. The timber of the parish is largely oak, pine, cypress, walnut and gum, with all the other smaller growths intermixed. The hill country, in which the whites predominate, has school houses and churches in abundance, while the colored people of the Point section and the river country are also taking great interest in both.

The principal towns in the parish are Bellevue, Haughton, Midway, Rocky Mount, Red Land and Collinsburg.

Home-seekers are assured a hearty and cordial welcome in Bossier, where land can be purchased at low figures and on reasonable terms.

DESOTO PARISH.

This parish is situated in the northwestern part of Louisiana, 30 and 32° north latitude, and 16 and 18° west longitude. It extends from Red river, on the east, to the Sabine, on the west, containing 910 square miles, with a population of 17,000.

Mansfield, its capital, very nearly in the centre, is forty miles south of Shreveport; is one of the most driving and wide-awake towns in the State, and a railway centre of importance; about 300 miles north of New Orleans and 200 miles northeast of Houston, Texas.

DeSoto parish is in direct communication with these trade centres by two navigable streams and by two lines of railway. The New Orleans and Shreveport division of the Texas and Pacific runs on the divide between the Red and Sabine rivers, through the centre of the parish, twenty-six miles. The Houston, Texas and Shreveport runs through the northern part of the parish twenty miles. The all important question of transportation is abundant, and in all respects satisfactory.

The town of Grand Cane is a place of considerable local importance, and has a good country to back it.

Logansport, on the Shreveport and Houston, near the Texas line, is doing a good business.

DeSoto is what is called in Louisiana a hill parish, in contradistinction to the alluvial, prairie, and long leaf-pine region; that is the lands are rolling and wooded. The soil is light, sandy loam, with a clay foundation, well timbered with every variety of oaks, hickory, pine, ash, beech, gum, etc.; universally well watered, either by springs or wells from twenty to forty feet deep. The drainage of surface water into Red river, on the east, and the Sabine river on the west is perfect, leaving no swamps, ponds or marshes to produce malaria. Timber is abundant for all purposes. Good lumber can be had at the mills for $7 50 per thousand; cypress or heart pine shingles at the stump for $3 50 per thousand. The lands are easy of cultivation, producing when fresh, one-half bale of cotton, twenty-five bushels of corn or oats, and one hundred bushels of potatoes per acre. After being worn by long and rough usage, it responds readily to manures. It is generally conceded that one dollar's worth of commer-

cial fertilizer applied to an acre, is sufficient to restore all worn lands to their original fertility. Better still, all worn lands set to bermuda grass and Lespedeza clover will not only furnish first-class pasturage for eight months, but will restore the land at the rate of 25 per cent per annum. No lands in the same degree of latitude can be better adapted to fruits and vegetables than the well drained, sandy loam of this section. Land is valued at from $2 to $10 an acre, according to situation, the quality being about the same. Proximity to towns, depots, schools and churches establishes the price.

DeSoto offers great inducements to the agricultural classes of immigrants of moderate means and industrious habits, with her cheap lands. A fertile soil, adapted to a wonderful variety of field crops, fruits and vegetables; an abundance of timber, water and pasturage. Having a population of less than twenty souls to the square mile, there is ample room for thousands to come and occupy the waste places. Those who have large means, and wish to pursue the all-cotton or all-sugar plan, had better seek the alluvial lands. But for homes, with all the comforts of life, as a reward to industry, DeSoto yields to no section in the South.

This section was settled, principally, in the fifties, by planters from South Carolina, Georgia and Alabama, who abandoned the worn lands of the older States, to occupy the virgin soil of Northern Louisiana. They were almost universally persons of means, education and refinement. Schools and churches were established as soon as neighborhoods were formed. A first-class college was established at Mansfield by the Methodists; another in the western part of the parish, at Keachi, by the Baptists. Both institutions are still in a flourishing condition, with over 400 pupils in attendance. The descendants of such a people, though impoverished by the late civil war, are naturally Christianized, law-abiding, civil, hospitable and refined. Through all adversity, they have clung with wonderful tenacity to education and religion. The interest divided from the sale of every sixteenth of a section of land, and the whole of the poll tax are devoted to public school purposes. Owing to the sparcity of population, the amount so derived is inadquate, but sufficient to furnish free tuition for three months each year. By private subscription, added to public funds, a large number of schools are open for the full term.

In the southeastern part of the parish, embracing a scope of territory perhaps ten miles square, are the Dalett hills. These hills are too broken for successful cultivation, except in small tracts, but are covered with splendid pine timber, a fine native grass for grazing, and, according to late geological examination, rich in coal and iron. The Texas and Pacific Railroad company have been, for some time past, prospecting and examining the coal in this region, and report favorable results.

In the southeastern part of the parish the growth is principally pine, of the short-leaf variety, offering great inducements to lumbermen. These lands are level, and well adapted to cultivation, after being denuded of the native growth. The native grasses furnish an excellent range for stock in this region.

The swamp lands bordering the Sabine river are celebrated for the great abundance of white oak timber suitable for staves, and red cypress, the best wood in the world for shingles. The supply is almost inexhaustible, and the demand cannot be supplied. But this region is necessarily unhealthy, which denies the settler the comforts of a happy home.

A warm welcome is extended to all honest, industrious persons who may wish to make homes in DeSoto.

CLAIBORNE PARISH.

The parish of Claiborne, as originally incorporated in 1828, and named Claiborne in honor of Louisiana's first Governor, comprised within its then boundaries enough territory to make a State of dimensions that Rhode Island, at least, would have respected.

Such were the attractions and advantages of the original Claiborne parish. However, immigrants swarmed into its territory, and the increase in population made necessary its subdivision into smaller parishes. So that now, lands originally lying in Claiborne are embraced within the bounds of the parishes, of Bossier, Jackson, Bienville, Webster and Lincoln, and the Claiborne of to-day is reduced to an area of 778 square miles, or 447,920 acres, bounded on the north by the State of Arkansas, on the east by Union and Lincoln parishes, on the south by Bienville and Lincoln, and on the west by Webster.

But though it has given of its territory to the formation of new parishes, Claiborne still holds within its borders many broad and fertile acres, and in diversity of natural resources, may still justly claim to be the banner hill parish of Louisiana.

The parish records show for the year 1887 an assessed valuation of

Lands		$834,245
Town Lots		68,080
Total realty		$902,325
Live Stock	$279,555	
Other personalty	213,485	493,040
Grand total		$1,395,365

The rate of parish taxation in 1887 was 9 mills on the dollar. This will be reduced to 7 mills in 1888, and will show a reduction of 3 mills in the last three years; yet, within those three years the parish has bought and paid for a Poor Farm $400—and has erected a jail at a cash outlay of $6,000. There is not a dollar of parish debt outstanding, and the Treasurer's reports show a balance of about $7000 in the parish treasury. In Louisiana the members of the parish police juries are appointed by the Governor from the body of the parish, and have control of the fiscal matters of their respective parishes.

A gray surface soil, underlaid by a yellow or reddish subsoil, prevails throughout the parish. Along the creeks and branches the lands are, of course, richer, and show larger yields per acre, but even the poorest uplands are so happily adapted to fertilization that, the intelligent and industrious farmer can usually make as much as he can gather.

Cotton and corn are the chief products, but other crops are profitably grown. The following figures, obtained from W. J. Mercer, parish assessor, show approximately the field crop yield of the parish in 1887:

Cotton, 41,000 acres, yield in bales, 22,500.
Corn, 45,000 acres, yield in bushels, 572,327.
Oats, 7500 acres, yield in bushels, 72,310.
Ribbon cane, 130 acres, yield in barrels molasses, 450,
Sorghum, 250 acres, yield in barrels molasses, 1000.
Sweet potatoes, 800 acres, yield in bushels, 97,347.

The average yield of cotton per acre is about one-half to three-quarters of a bale, and of corn, 20 to 25 bushels. Exceptional cases have been recorded, however, where the yield has been much larger.

For example, in the year 1887, Mr. G. W. Alexander, of this parish, was awarded the premium at the Shreveport Fair for the best acres of corn, his being 129 bushels and 48 pounds. Another Claiborne farmer made 2218 pounds of seed cotton on one acre of hill land, and still an-

other, with one mule, made 14 bales of cotton, averaging 418 pounds to the bale, 240 bushels of corn, 40 bushels of sweet potatoes, 20 of peanuts, 62 gallons of sorghum and 1262 bundles of fodder—paying for help to make this crop only $16 50.

These yields, as above stated, are exceptional, yet they serve to show what handsome rewards await the application of industry and intelligence.

Ribbon cane, on good land, with proper cultivation, will yield from 500 to 600 gallons of molasses per acre, which readily sells at from 40 to 50 cents per gallon. Sorghum, which is usually planted on poor lands here, yields an average of 400 gallons to the acre, and sells at 25 cents per gallon. Potatoes, peas, and all vine crops, yield so abundantly that figures giving their actual yield seem fabulous. Wheat is grown to some extent, but chiefly as a forage crop, as there are no facilities here for grinding it. Oats (of the "Red Rust Proof" variety) yield an average of 15 bushels to the acre. Rye and German millet, though not largely grown here, are said to do well. Fruit of all kinds is successfully grown.

All that has been needed to develop the fruit-growing industry of Claiborne has been a lack of facility for transportation. This obstacle to its successful pursuit bids fair to be removed in the early future. The Louisiana North and South railroad from Magnolia, Arkansas (crossing the Vicksburg, Shreveport and Pacific railroad at Gibbs,) to Alexandria, La., has already been completed from Gibbs to Homer, the parish seat of Claiborne; and when completed to its northern terminus, will afford the people of Claiborne direct communication to St. Louis, Kansas City, Denver and other cities of the Northwest, and with New Orleans on the south.

There are in the parish 19,000 acres of United States lands, and 6000 acres of State lands. The former are well timbered, and are of course subject to entry upon the terms prescribed by the United States homestead laws. The State lands are chiefly swamp lands, but are well timbered, and can be bought at 75 cents per acre, or entered under State homestead laws, similar in their provisions to the homestead laws of the United States.

Experience has proven that mules and horses can be profitably raised here. Colts grow rapidly, and can be put to work when two and a half years old, and even at that age stand the climate better than Western mules five years of age. A gentleman near the centre of the parish, who has been engaged in raising mules and horses for the past twelve years, says that the colts on his place have been uniformly free from disease, have grown rapidly, and have generally developed into larger animals than were their sires and dams of Western blood, and have commanded better prices in the home markets than can be obtained for animals from other States. He does not depend much on natural pasturage, however, but on lands too poor for other uses, he makes abundant crops of "speckled" field peas, which he feeds to his stock, and annually sows wheat to provide winter pasturage for them. He estimates the average cost of rearing a colt to the age of two years, at thirty to forty dollars. Few experiments with blooded cattle have been made here, not enough, indeed, to form the basis of an intelligent opinion as to results.

The timber supply of the parish is limited, but is ample to meet all local demands. The school and church facilities are excellent. At Homer, the parish seat, is located a college, giving instructions in the higher branches, and empowered to confer diplomas. At Haynesville, the second largest town in the parish, is the Normal Institute, and a high school with able teachers. At Summerfield, New Athens, Lisbon,

Gordon, and indeed throughout the parish, a lively interest is shown in the cause of education.

Being the highest portion of the State, abundantly supplied with pure water, and traversed by no sluggish bayous, it follows that Claiborne is the most healthy section of the State.

Indeed, diseases of a malarial character are unknown here. The general healthfulness of the people is bespoken by the blushing tint of the maiden's cheek, the stalwart specimens of young manhood, and the number of those who are still alert and active under a burden of years exceeding the allotted "three score and ten."

To seekers of home in our Southland, no section offers greater and more varied attractions than "old Claiborne;" and those who come to dwell there, if acquainted with Indian lore, will no doubt think, as does this writer, that Alabama—"Here we rest"—would be a fitting name for the parish.

The health, the homes, and the pockets of this people are open to worthy comers from all sections, but it would be hard to find less comfortable quarters for the idle, vicious and adventurous, than Claiborne affords.

SABINE PARISH.

The parish of Sabine is bounded on the north by the parishes of De-Soto and Natchitoches, on the east by the parish of Natchitoches, on the south by the parish of Vernon, and on the west by the Sabine river.

The population is now something over 10,000, being principally white, and there being about 1400 white voters to 400 colored. There were but few large planters in Sabine previous to the war, the mass of the people being non-slave owners, and most families cultivating their own farms. As a consequence, the result of the war failed to bear so heavily upon them, and the returned soldiers had but to go to work with a will, repairing and building up their places, and being used to honest labor, had no new order of things to which to adapt themselves. Taken all in all, Sabine can well claim to be one among the banner parishes of Louisiana. Her people are noted for their healthy appearance, their hospitality, and their moral, upright and industrious habits. They have always been in a thrifty and independent condition, making it a rule to raise yearly an ample sufficiency of the home products for home consumption, and then plenty for market. The crops are diversified. Cotton is the principal money-raising product, but then, corn, oats, peas, potatoes, sugar cane, sorghum and poultry are raised in abundance. Nor do the people lose sight of stock-raising. In fact, stock of every kind raised in the parish more than supplies the home demand. Cattle and hogs abound in every section, and are raised with but little trouble, and no expense to the owner, there being both a summer and winter range for cattle, and the hogs grow perfectly fat in winter upon the mast, which seldom fails. It is the rule that every family owns the farm upon which they reside, and the corn-crib and smoke-house of every family is at their own home. There are no very wealthy people in Sabine, but a number of good and extensive farmers, a number of solid merchants, and the people of every calling and following are out of debt, and have something ahead, and all are cheerful, happy and content. The parish is strictly prohibition, there being no license issued for the sale of intoxicating liquors, and no way to obtain them except from the hands of a regular physician for strictly medical purposes. The Farmers' Alliance is a very strong and powerful organization in the parish, and adhering so closely to the real and original purposes of their order, and being under the lead of wise, pure-minded, honest and up-

right persons in every section, has been conducive of great benefits and untold good.

The Texas and Pacific railroad passes a distance of some ten miles through the northern portion of the parish, and has one station, Sodus, a beautiful and thriving town near the northern boundary, and from that point, or from Robeline or Marthaville, in the parish of Natchitoches, any portion of Sabine is easy of access. It is also expected that the Kansas City, Gulf and Watkins railroad will pass directly through the parish, from north to south. Already the line has been surveyed through Fort Jesup and crossing the Texas and Pacific two miles west of Sodus.

LANDS.

There are several different kinds of land in Sabine, but those in cultivation are what are generally termed uplands. Even the extreme uplands, a light gray, sandy soil, produce well, and the hammock lands and the creek bottom lands are very fertile, yielding with proper cultivation all that can be well gathered. The parish is literally threaded with streams of pure water; some of considerable size and others smaller. The principal creeks running through the parish are: Bayous Toro, Negreet, Lanana, San Patricio, San Miguel and Bayou Cie, and all these have bottoms extending on each side from half a mile to a mile wide. The smaller creeks generally have bottoms of strong, rich soil, easily cultivated, and affording farms of any size. There is no section where a living is made easier than in Sabine, and there is no country more desirable when any person wishes to blend farming with stock raising.

TIMBER.

No parish in the State can surpass Sabine in her wealth of timber. All along the Sabine river is to be found fine cypress brakes, and a lucrative business is done annually by many rafting both cypress and pine down the Sabine river to Orange, in Texas. Beyond this, however, the immense interest of Sabine is yet entirely undeveloped. Her greatest wealth is to be found in her magnificent forests of both long and short-leaf pine, even the latter being of such a superior quality as to make it a little less valuable than the yellow or long-leaf pine. Capitalists have already began to turn their attention to these lands. Large size tracts are already owned by gentlemen living in New Orleans, Cincinnati and New York. In the creek bottoms and on much of the uplands is to be found hickory, white oak, red oak, beech, ash and cherry. To form a correct idea of the timber interests of Sabine, one must necessarily pass over the parish.

CHURCHES.

The principal religious denominations in the parish are: The Baptist, Methodist and Catholic. It may be truthfully said of the people of Sabine that they are truly moral and religious people. Every neighborhood has its comfortable and substantial place of worship, and many of the church edifices would do credit to any country. Divine service on every Sabbath is within the reach of every locality. The various churches are supplied with worthy ministers, and are all well sustained.

SCHOOLS.

Under the management of an excellent school board, the public school system is working well. The parish is divided into school districts, and every district has a comfortable school house. Competent teachers are employed, and where the public fund is not sufficient to keep up a continuous school, the deficiency is supplied by the patrons out of their private funds. The police jury has now very wisely made a levy of two

mills on the dollar for school purposes alone, and this, with the poll tax, the sixteenth section interest, and the fund derived from the State, will enable every neighborhood to have a public school during the greater portion of the year.

NATCHITOCHES PARISH.*

This parish is situated in Central Louisiana, in what is known as the cotton belt, and is noted for the richness of its alluvial lands, general healthiness, good water and educational facilities, freedom from overflow, picturesque scenery and the numerous inducements it holds out to intending immigrants.

Both by water and rail, this parish is placed in easy and rapid communication with New Orleans (about 250 southeast), and Shreveport (about 80 miles northwest).

The rivers are numerous, viz: Red river, flowing in Mississippi, navigable by large steamboats; Cane river, partly navigable; Old river, bayous Pierre and Natchez.

Some of the finest lands in the South are grouped round these streams, and they possess one single and striking advantage over most of the alluvial lands in the State, in being perfectly free from overflow, and well drained.

The population of the parish is about 25,900, and the chief towns are Natchitoches, Robeline, Cloutierville, Campte, Provencal, Marthaville and Prudhomme. The educational facilities leave nothing to be desired, besides every district being provided with a school, the famous State Normal college, famous for its able staff of teachers and the great educational advantages it offers, is situated on a breezy eminence on the outskirts of the city of Natchitoches.

In the towns and on the alluvial lands, cistern water is generally used; fine springs, however, many possessing valuable medicinal qualities are to be found. At Camp Salubrity, for instance, so named by the United States soldiers, who made it their headquarters before the war, on account of its healthfulness, there are sulphur, iron and magnesia springs.

Summer is long, but equable; hot spells, such as they experience in the North, being absolutely unknown. No case of sunstroke is recorded, and the seasons are free from blizzards, hail-storms and violent convulsions of nature. The winters of 1885-1886, and 1887–1888 are generally considered the severest within the last quarter of a century. Snow fell to the depth of six inches.

The easy winters experienced here are one of the greatest attractions of this section. With care, grass can be obtained for stock all the year round.

The epidemics, so common in the large Northern cities, seldom make their appearance here. Smallpox, typhoid and scarlet fevers are almost unknown, although isolated cases may have occurred in the parish. No record has been kept of them. Chills and fever in the spring and fall may be contracted through exposure. They seldom assume a dangerous character, except through the gross carelessness of the patient.

Comparatively speaking, the parish may be said to be free from diseases of a severe malarial character.

The best soils for purposes of classification, may be subdivided as follows:

Good uplands—Soil, sandy gray, or yellow loamy or red ferruginous. Subsoil, red clay. Small bottoms very fertile. Forest—Oaks, hickory, ash, beech, maple, dogwood, gums and short leaf yellow pine. Health—

*This parish is thoroughly marked with the three classes of lands—"Good Uplands," "Alluvial" and "Pine Hills," and is hardly properly placed in the division now under consideration; but we dislike to dissociate it from its grouping in the pamphlet we are quoting.

Water good. Products—Cotton, corn, potatoes, small grain, fruit and stock.

Pine hills—Thin soil, water good and abundant; good grazing; lumber, long leaf yellow pine.

Alluvion—Black, dark-red, and reddish gray of great depth and of extraordinary fertility. Forest—Water and live oaks, gum, willow, cottonwood, elms, ash, etc. Cane brakes afford pasturage and shelter for stock all the year round. Common products, cotton, corn, tobacco, rice, etc.

The following prices may be quoted in connection with these lands:

Unimproved good upland and pine lands, $1 to $4 per acre; improved, $3 to $10 per acre; unimproved river lands, $4 to $10 per acre; improved, $8 to $25 per acre.

Game abounds in this country, and excellent fishing is to be obtained in the river, lakes and bayous. Society is exceptionally refined, and churches of every denomination are generally to be found in the town, where pefect religious equality reigns.

On this head we may quote from a letter of Bishop Galleher, (Episcopal):

"I am acquainted with the Natchitoches and Cane river country, and I know it to be healthful, productive and desirable. There is good land, good timber and good water there. The facilities offered by the Red river and the Texas and Pacific railroad make the country accessible, and confidently look forward to a large immigration to that section.

"It has, in large measure, the settled features of good Christian civilization, and, at the same time, wide opportunity for settlers, who wish to make homes for themselves."

The official report of the department of agriculture says of these lands:

Such varied and valuable resources in a climate so salubrious, can hardly be found anywhere else on the face of the earth.

CROPS.

Cotton—Alluvion—1½ to 2 bales per acre; good upland ½ to 1 bale per acre. Note—3 bales have been made by using fertilizers.

Corn—Alluvion—40 to 50 bushels per acre; good upland 40 to 50 bushels per acre. Note—100 bushels have been made by using fertilizers.

TOBACCO.

Tobacco of an excellent quality grows prolifically on the rich alluvion. It was formerly known in Europe as Nakatos Perique.

GRASSES AND CLOVER.

Bermuda grass indigenous, and mixed with vetch, burr clover and rescue grass, affords all the year round pasturage. Tall meadow oats, and orchard Guinea, or Johnson grass, thrive well.

Red clover is also successful, while Japan clover, which chemists claim possesses more nutritious qualities than Kentucky blue grass, grows abundantly in the uplands, and affords admirable pasturage.

STOCK.

As a stock-raising, or dairy-farming region, this country claims and merits the highest distinction.

UNION PARISH.

With the exception of a small strip of alluvial land along the west bank of the Ouachita river, the parish of Union is composed wholly of oak uplands. Its area is 910 square miles, and its cultivated land amounts to 62,661 acres. There were produced, in 1880, a total of

11,692 bales of cotton on 28,308 acres of land, or an average of .41 of a bale per acre.

The uplands are hilly or rolling, and there is a little prairie. There are two chief varieties of upland soil, viz: Sandy loam, and red stiff land. The former compreheuds fully three-fourths of the lands in the parish. Its timber growth is short-leaf pine, oak, hickory, dogwood, in the uplands; sweet gum, bay, mulberry, ash, etc., in the lowlands. The soil, to the depth of ten to twelve inches, is fine, sandy, clay loam, of a yellow brown or mahogany tint. The subsoil is heavier, and frequently contains small, dull red, angular sand-stone gravel and rocks. The soil tills easily at all times, and is warm and early. The crops grown are corn, cotton, sweet potatoes, peas, small grain, sugar cane, tobacco, vegetables and all kinds of fruit. The two last, with cotton, seem to be the best adapted to the soil. Cottou forms about one-half of the crops planted; usual height of stalk, four feet. In rainy seasons, and on fresh lands, it sometimes runs to weed; this is remedied by topping. The seed-cotton product on fresh land is 1000 to 1500 pounds per acre, of which about 1350 pounds are needed for a 450-pound bale. The lint, when clean, rates in market as middling to fair middling. After five years' cultivation the product is 500 to 800 pounds, about 1460 pounds being then needed for a 450-pound bale; the staple is shorter and not so strong; will class as good ordinary or low middling.

About 10 per cent of this upland is turned out for want of laborers; when again taken up, it will yield from 750 to 1000 pounds of seed-cotton per acre.

The red or "mulatto" lands occur most frequently in the south-western part of the parish, but more or less in all, forming about one-fifth of the land.

The subsoil is red clay, containing flinty, white rounded gravel, underlaid by gravel or rock at three to ten feet. It tills easy in dry seasons, and with difficulty when wet; is rather cold, and late in the spring. It is apparently best adapted to corn and grain; about half is planted in cotton; the stalks are about four feet high; the seed-cotton product, 800 to 1200, rates as middling in market; no material difference after five years' cultivation.

In the lowlands, on the streams, the soil is black clay loam, several feet in depth; subsoil lighter than surface. About two-thirds of the crops on these lands is cotton. The seed-cotton product on fresh land is from 2000 to 3000 pounds, the stalk attaining a height of six to eight feet; the staple rates as good middling. No change in quantity or quality of product has yet been noticed after years of cultivation.

The lands of the bottoms rank equal in fertility to the alluvial lands of the rivers. The thriving farms of the parish are largely on this land, which explains the high name this parish takes in the north tier of hill parishes. Union is one of the banner parishes of North Louisiana, and the people are among the best, intellectually, morally and socially, to be found in any of the Southern States.

The prominent towns in this parish are Farmerville, the parish seat, and Shiloh.

School and church facilities are equal to those of any parish in North Louisiana.

The people generous, neighborly and very hospitable.

WEBSTER PARISH.

Webster parish was created by the Legislature of 1871 of the territory taken from Claiborne, Bossier and Bienville parishes, and contains about 300,000 acres of land, one-third being in cultivation, producing 10,000 bales of cotton, with corn, oats, peas, potatoes and vegetables, usually

to supply home consumption. There are no alluvial lands in the parish; but quite a number of creeks, all of which have a considerable border of what is styled good creek bottom land. Excellent well water can be had in all parts of the parish, and in many places can be found fine springs and small branches of good water for person and stock. The supply of timber is inexhaustible and of fine quality, chiefly red oak, post oak, white oak, hickory, ash, gum, and pine, and on the borders of the creeks large quantity of cypress can be had; also black walnut, which doubtless at no distant future will be very valuable. The Bayou Dorcheat, which passes through Webster parish from north to south, a distance of thirty miles or more, and makes its way into Red river through Lake Bisteneau and Loggy Bayou, is navigable for six months in the year for good class Red River boats to a point opposite to and within two and a half miles of Minden, the parish site, giving boating facilities equal with Shreveport on time and freight rates. Land has no fixed price; from $1 to $10 per acre are about the ruling prices. It may be regarded as one among the best countries that can be found for poor men. No other could offer greater inducements to the man who is satisfied with a good comfortable living, pleasant and healthy home for himself and family. Such can be had here at a small cost and on easy terms. Any industrious, honest man can buy lands on time with 8 per cent. interest, and get liberal advances made by merchants to make his crops. The average crop, one year with another, is half bale of cotton and fifteen bushels of corn per acre. The population of the parish is about 12,000, one-half colored. Minden, the parish site, and only town in the parish, has 1,500 inhabitants, twenty business houses—several of them doing a business of over $100,000 annually.

The taxable property of the parish is about one million, and Minden pays about two-thirds of the parish revenue. There is a special interest that is worthy of mention here. Minden is the parish site and has a handsome and substantial court house, with all other surroundings well and conveniently arranged, and as healthy a location as can be found anywhere; with male and female colleges, equal to the best in any country in point of management, under good efficient principals and teachers, with commodious well arranged buildings and grounds.

Minden is connected with the outside world through a tap railroad, which joins the Vicksburg, Shreveport and Pacific railway, at Minden Junction. Besides Minden, the principal trading points, are Lannesville and Dubberly. Webster parish is the home of a thrifty and enterprising class of people, who are self-sustaining and prosperous, generous and public spirited.

LINCOLN PARISH.

Lincoln parish has a total area of 485 square miles, all of which is wood land. The red lands and the yellow loam each occupy about the same amount and form practically the entire soil of the parish, except a small amount of creek bottoms. These bottoms are the same as those mentioned in preceding parishes, but there is not so much of it in this parish. The lands of the parish, with the exception of a portion in the north part, which is decidedly hilly and broken, are gentle and rolling, and easily cultivated. The growth of the trees on this land is a pretty sure indicator of the fertility of the land. The larger the trees and the less admixture of the small or scrubby pine, the more fertile the lands. The lands of the parish wear well, and the use of fertilizers is becoming popular. The farming population is doing well and thriving, as in the parishes of Union and Claiborne. The timber of the parish is sufficient for home demand for many years to come. The eastern portion of the parish contains probably a larger percentage of creek or bottom lands,

and timber is very fine. The pine, oak and hickory is the principal growth. The parish is well provided with school houses and churches.

Ruston, the parish site of this parish, is one of the most prosperous towns in North Louisiana, is situated on the Vicksburg, Shreveport and Pacific railroad, in the middle of a fertile country, and is growing into prominence.

The towns of Simsboro and Choudrant, located on the railroad, although smaller than Arcadia and Ruston, are good business points. The country around these towns is settled by a splendid population, consisting mostly of white farmers.

JACKSON PARISH.

The parish is entirely upland, containing no alluvial soil. Its area is 590 square miles, divided thus: Oak uplands, 340 square miles; long-leaf pine hills, 250 square miles. In 1880, with 10,138 acres in cotton, there were produced 3,753 bales, or an average of .37 of a bale per acre. To those seeking a healthy locality there is no region better than Jackson parish, with its oak uplands and long-leaf pine hills.

The northern and greater portion of Jackson parish is rolling oak uplands, in which the pine-flat feature is much less common than in Bienville, the soil being chiefly of the pale-yellow loam type, with more or less of the red-land subsoil. The latter feature becomes very prominent north of Vernon, where the true red-land ridges, with their unpromising-looking but very productive and durable soil, occupy a considerable portion of the surface. Southeast of Vernon also, on the Bayou Castor, there is a good farming region, rolling uplands, timbered with oaks, hickory, dogwood and chinquapin, mixed with some short-leaf pine on the hills, and with ash, beech, elm, sweet and black gums in bottoms.

In the southern portion of Jackson parish, the long-leaf pine prevails altogether on the higher ridges and on the crests of the lower ones; but, as in Bienville, the slopes are largely timbered with oaks, mixed with short-leaf pine, and are fairly productive.

BIENVILLE PARISH.

Bienville parish, entirely upland, covers an area of 856 square miles, of which 756 square miles are oak uplands, the remainder being long-leaf pine hills. There are 45,089 acres in cultivation, and the parish in 1880 raised 7,208 bales of cotton on 18,242 acres of land, or an average of .40 of a bale per acre.

Bienville parish is mainly gently rolling and rather sandy oak uplands, not unfrequently almost level, especially in the western portion. Post oak and short-leaf pine are the prevailing timber trees, intermingled more or less with other oaks and hickory, according to the quality of the land. The pale yellow loam soil is predominant. In the level portions, the gray pine-flat soil is largely developed, and then the water oak and black gum for a characteristic ingredient of the timber. Most of flats, bordering the streams are of this character, as is also the country bordering on Lake Bisteneau.

The red subsoil appears in spots, generally where the country becomes more rolling, and is often accompanied by rolled gravel, as well as by iron ore (limonite) concretions. This is more especially the case in the southeastern portion, where tracts of hilly red lands occur, the ridges in the southerly portion having more or less long-leaf pine on their crests, while oak growth, sometimes intermingled with short-leaf pine, covers the hill-sides. At Brushy valley and northward, the red land feature is quite prevalent, and excellent crops of cotton are made, both in the uplands and in the bottoms of the streams, which are here not so liable to overflow, and possess less of the pine-flat character.

There is also a good deal of very sandy hill land, which washes very badly when turned out after cultivation.

Not far from Brushy valley is a salt-lick flat, known as Rayburn's lick, where much salt was made during the war. It is underlaid by gypsum and (Cretaceous) limestone, from which good lime can be burned. The use of this on the soil of the region would be very beneficial. A similar lick is "Kings," near the northeast corner of Red River parish, where the limestone occurs in even greater abundance and of the best quality. A similar lime strata spot occurs in the northwestern portion of the parish, near Quay Postoffice, on the head of Dugdemona bayou.

About 100 square miles of this point is strictly lumber and grazing land, except in the creek land between the hills which produce very fine crops. This belt of timber is equal to the best in the pine belt, which covers the large portion of Catahoula, Grand Rapides and Vernon. Bienville ranks high among the parishes. The iron minerals are described in the report of Prof. Enderle.

Communication with the New Orleans market is via landings on Red river, steamers on Lake Bisteneau, and by the Vicksburg, Shreveport and Pacific Railroad, which runs through the northern portion or it.

The town of Arcadia, on the Vicksburg, Shreveport and Pacific Railroad, has a population of over 1600 souls, and is one of the best business points in North Louisiana.

The parish site is Sparta, a small place, having a good business from the surrounding country.

Gibbsland.—This place, one of the prettiest spots on the Vicksburg, Shreveport and Pacific, is a place of some consequence, owing to its saw mills and lumber trade.

Ringgold.—This place is near Lake Bisteneau, and is surrounded by a fine country.

The school and church advantages are good. The people are industrious, sociable, neighborly and prosperous. There is plenty of room in this parish for home-seekers and investors in land.

RED RIVER PARISH.

This parish lies in the fertile valley of Red river, the finest cotton producing region of the world. Its area is 386 square miles, of which 165 square miles are rich alluvium, or Red river bottom. There are 33,930 acres in cultivation, of which 19,200 acres are in cotton, and 10,566 acres in corn.

Coushatta, the parish site, situated on Red river, is a lively little town, where are located a number of staunch firms engaged in commercial pursuits. Red river possesses many advantages to commend it to the attention of home-seekers. It is rich in valuable timber, and has a soil, both alluvial and upland, of unsurpassed fertility.

All the vegetables and fruit known to horticulturists, when properly cared for, grow luxuriantly, and yield a rich return for the labor bestowed upon their cultivation; sweet and Irish potatoes both produce wonderful results. An average of one hundred and fifty bushels per acre of Irish potatoes, is not an uncommon yield, and as much as three hundred bushels to the acre of sweet potatoes have been produced.

The average yield of cotton is one bale per acre, but it is not uncommon to obtain one and a half, and even two bales per acre, under judicious cultivation. Corn is produced on an average of 30 to 40 bushels per acre, and in many instances, from 75 to 100 bushels have been gathered per acre. The common field pea planted with corn on the same ground, and at the same time, will yield from 20 to 30 bushels, besides acting as a superior fertilizer to the land planted. Sorghum grows

luxuriantly and proves rich in saccharine properties. Millet, oats, rye and clover yield large results. The native grasses and cattle food grow in great richness, and possess as much nutritive properties as any known food for grazing.

Special attention is given to fine stock, and in the parish are several herds of Holstein, Jersey and other strains that will compare favorably with the best in the country. The remarks on schools, churches, society and health in the descriptions of other parishes are applicable to Red River, where the people are prosperous, hospitable, generons, and will welcome heartily all those seeking new homes in one of the most attractive parishes in North Louisiana.

OUACHITA PARISH.

The parish of Ouachita is a rich and populous parish. It lies on both sides of the Ouachita river, and is largely of alluvial soil. Its entire area is 640 square miles, of which the alluvial lands cover 340, the long-leaf pine hills 190, and the oak uplands 110 square miles. That portion of the parish lying east of the Ouachita, is almost entirely alluvial, and the preponderance of crops is grown there. The total crop of the parish is large, and is mostly cotton and corn, producing from one to two bales of cotton, and from 40 to 75 bushels of corn to the acre, when cultivated intelligently. Fruit, vegetables and all the grasses grow luxuriantly, and yield abundantly. Cattle and stock generally do well and pay handsome returns. Good health prevails throughout the parish. The church and school facilities are excellent. The timber on the alluvial lands is largely of the water oak, sycamore, cypress and tupelo. On the oak upland is found all kinds of oak, and short-leaf pine grows to great extent. There is on Bayou Cheniere (pronounced Shinney), a large cypress brake. This bayou lies about seven miles west of Monroe between hill lands, and is crossed by the Vicksburg, Shreveport and Pacific railroad. The timber of the western portion of the parish is being utilized and shipped by the railroad. There are also a great many saw mills in the southwestern portion of this parish in the long-leaf pine region. This industry is opened for the profitable investment of capital.

Monroe is a beautiful and attractive little city of 2,500 population; has a mayor and council and all the facilities for the transaction of business possessed by larger cities. West Monroe lies on the west bank of the Ouachita. It is a business place of growing importance.

In this parish, near Calhoun, a station on the Vicksburg, Shreveport and Pacific railway, is located the experiment farm, which is intended to teach a scientific and better cultivation of all lands in North Louisiana.

In the "Pine Hills" or group of parishes, are to be placed Vernon, Grant, Winn, Catahoula, Rapides, St. Helena, Tangipahoa, Washington and St. Tammany. To all intents, all the above, except Rapides, Grant and Catahoula may be said to be *entirely* in the "Pine Hills" area. The Red river bottom giving considerable territory in Grant and Rapides parishes to the "Alluvial Lands," and the Tensas river and its affluents to Catahoula parish. These "Pine Hills" parishes are widely separated, however: St. Helena, Tangipahoa, Washington and St. Tammany being in the northeastern corner of the State, south and west of the State of Mississippi, while the others are in west and northwest Louisiana.

We now proceed to extract from "Hon. Wm. Harris' late hand-book of Immigration," descriptions of these parishes:

VERNON.

The parish of Vernon lies to the south of Sabine and to the west of Rapides, and extends westward to the river Sabine, the boundary of Texas. This parish is noted for the extensive forests of long-leaf pine with which it is covered. Leesville is the county site. A prominent citizen writes:

"The parish is mostly an upland country, though a good deal of low-land and cyprrss brakes are near the Sabine river. There are some prairie lands a few miles northwest, north and south of Leesville, which are very productive. The large Anacoco creek passes entirely through the western part of the parish, and affords a good deal of fine lands, besides some State lands well timbered. Numerous creeks run through that portion of the parish emptying into the Anacoco, and a large number pass through the eastern portion, which empty into the Calcasieu river. The lands are well adapted to cotton, corn, potatoes, rice and sugar cane. The total population is about 5000, mostly whites.

"The farmers are doing well and have settled near the prairie lands, and along the creeks and rivers, where they have access to swamp and pine lands, though in many instances they have settled in the pine woods, where they cultivate excellent pine lands and raise stock. The surface of the parish is, in general, rolling and in parts hilly, and the yellow pine grows in abundance.

"The swamp lands are of two grades—a low stiff bottom land, and a high, sandy, swamp land, and all well timbered with oak, gum, hickory, magnolia, ash, and various other growths. The immense range for stock, and pure water in abundance, make it all one could desire who seeks to combine farming and stock raising.

"The pine and cypress timber have attracted a good deal of attention, and a lively business is now going on (especially in pine), running logs down the Anacoco creek and Sabine river for the Orange timber market at remunerative prices. This trade is fast increasing.

"Private lands are almost without a price, there being so much vacant public land well adapted to farming, upon which immigrants can settle without money or price, free from all fear of being disturbed; for since the first settling of this country, there are but three or four cases where the claims, rights and interest of such settlers have been infringed upon by other parties entering the land.

"The character of the people is law-abiding and hospitable—but few cases ever occur of a grave criminal nature. As proof of this, the police jury of the parish levied a tax of only $650 to defray the entire criminal expenses of the parish for the year 1880, deeming it ample for that purpose.

"Agriculture, cutting and running timber to market, and raising stock are the chief employments of the people, and as a general thing they are easy and prosperous.

"The health of the parish is extremely good.

"All the creeks furnish fish in abundance. Deer and turkeys are plentiful in all localities. A fine corn crop has been made this year, which can be had on reasonable terms, and the citizens of the parish are prepared to welcome all who come to look up homes."

RAPIDES.*

Red river flows diagonally across this parish from northwest to southeast, and its course through the parish, by the meanderings of the stream, is about sixty miles in length. The valley lies mainly on the west side,

*This parish is placed in the "Pine Hills" belt because the *greater* portion of its area is in that classification by Prof. Lockett.

and has an average width of about ten miles. Through this alluvial territory, west of Red river and nearly parallel with it, flow the Bayous Rapides, Robert and Bœuf, forming almost a continuous stream. The distance intervening between the river and these bayous varies from two to about seven miles. In this section the plantations and farms which are almost contignous, are located on the river and along the bayous, near which stand the residences of the planters and the quarters for laborers. Here, also, are located the sugar mills, cotton gins, and the other buildings of the farms; and near the margins of these streams run the highways which traverse the country. Nearly the whole of the territory, here described is above overflow, and every acre can be reclaimed and brought into cultivation.

This section is by far the richest portion of the parish, and here are found many of the largest and most productive cotton and sugar plantations in the State. It was originally covered with dense canebrakes, but these have been destroyed by the inroads of herds of stock, or have given place to the varied crops produced in this portion of Louisiana.

The healthfulness of the parish is not excelled by any portion of the South, and is as nearly perfect as that of any country. Instances of longevity among the resident population are quite common. Foreigners become acclimated, and encounter exposure to all the vicissitudes of the weather with the same impunity as the native popnlation. Sunstrokes seldom or never occur, and no enervating effects of climate are experienced.

Alexandria, the parish site, situated upon the west bank of Red river, 150 miles above its mouth, is a town of considerable importance, and has a population of 2000.† It stands at the head of low water navigation on Red river, and is the business centre and chief shipping point of an immensely fertile region. It contains numerous churches and schools, and is rapidly improving. Pineville, on the opposite side of the river, is the second town in the parish, and has about 600 inhabitants. A large business is done by the merchants of this place, and it ships a large quantity of cotton. Cheneyville, Kanomie, Cotile and Lacomte are villages of some note. All of them are situated in the valley section.

The soils of this region may be classed under three heads:

1. The alluvial is the most productive, and is equally adapted to the production of the great staples, cotton and sugar.

2. The uplands and creek bottoms, on which the soil is generally a sandy loam, varying in depth, quite productive, easy of cultivation, and yielding oftentimes a bale of cotton and forty bushels of corn per acre.

3. The pine lands, consisting of a thin soil with an under stratum of clay, susceptible of being highly enriched by manuring or by the application of the ordinary fertilizers.

In the bottoms are found a variety of the oak, cypress, ash, hackberry, elm, gum, cotton wood, beech, willow and many other kinds. On the hills, the yellow pine constitutes almost the entire growth. The saw-mills supply the home demand for lumber, and ship large quantities to points on the Red and Mississippi rivers.

GRANT, WINN AND CATAHOULA PARISHES.

These parishes lie together near the centre of Louisiana, between parallels 31° and 32°.

Grant and Winn are located in the long leaf pine hills, and although Catahoula is regarded as a pine woods parish, a large part of the parish

†Considerably greater now.

is alluvial and some bluff and good uplands. All of these parishes are heavily timbered.

The hill portion is a succession of elevations, interspersed with valleys and bottoms, and intersected by numerous creeks, some of which are fed by springs of pure water. The swamp is level alluvial land, intersected by numerous rivers and bayous, and dotted with lakes, some of which are beautiful.

In the swamp region are found nearly all the valuable varieties of oaks, also the ash, sweet gum, hackberry, maple and persimmon. In the hills, in addition to the varieties mentioned, there are poplar, sumac, sassafras, hickory, magnolia and a vast forest of pine trees. The soil of the swamp is exceedingly fertile, but contains no minerals. That of the hill is generally a sandy loam, based upon red or yellow clay, with rocks suitable for building purposes, cropping out on the hillsides. The soil of the numerous valleys in the hill region is alluvion, and very productive. Coal has been found, and traces of iron ore; also chalk, potter's clay and kaolin. That there is much sulphur is evinced by the numerous sulphur and salt springs, two of which, the white sulphur and the castor sulphur, are justly noted for their healing proprieties. The mineral resources have not been developed. Large quantities of marble have been discovered in Winn.

All the products suitable to this latitude can be grown, but the following are best adapted for cultivation: Cotton, corn, peas, sugar cane, oats, tobacco, rice, potatoes and melons.

In the hills the average yield of corn, per acre, is about fifteen bushels; of cotton, about 1000 pounds of seed cotton. In the swamp the average yield of corn is about thirty-five bushels per acre, and of cotton about one bale. Much of the land will, when properly cultivated, produce from one to two bales of cotton to the acre, and from thirty to fifty bushels of corn. Corn was sold last year in the home market at from fifty to seventy-five cents per bushel.*

These parishes are about as healthy as any other portion of central or northern Louisiana, and in this respect compare favorably with any other portion of the Southwest. In the swamp, cistern water is used. In the hills, good wells and springs are common. The temperature rarely ever rises above 90° in summer, and seldom falls below freezing point in winter. The winters are generally mild enough to admit of good gardens.

The population are mostly white. The negroes are quiet and peaceable, but are unthrifty, and not as industrious as the white laborers of the West and North. They are gradually leaving the parish for those sections where their race is numerically stronger than the whites. The majority of the whites are from the old States of the Union. There are many Germans, Irish and Israelites here, who seem to be prosperous and contented.

In the swamp, the public land belongs to the State, and is generally too much subject to overflow to be settled. In the hills, there are immense bodies of public land belonging to the United States, subject to entry.† Private unimproved lands can be purchased in any sized tracts, and at from 50 cents to $8 per acre; and improved lands can be bought at from $1 to $15 per acre. Land can be rented at from $1 50 to $3 50 per acre, but the usual manner of renting is "on the shares."

Nearly all the religious denominations to be found in the Union are represented here; but the vast majority of the religious people belong to the Methodist Episcopal Church South and the Missionary Baptists.

In the swamp, blacks are generally employed as laborers. These,

*This refers to a period several years back.
†Let the reader not count on that *now*.

though not as efficient as is desirable, are far more reliable now than they were soon after their eman ipation. In the hills the laborers are white men from the older States of the Union. People want intelligent white laborers from other sections of the United States and from Europe —men who will come here for the purpose of establishing for themselves permanent homes and identifying themselves in interest with her citizens. Such will be heartily welcomed, will find employment at remunerative wages, and will be able to work all the year in the field with safety, the old error, inculcated by the enemies of the South, that only black men can do this having been exploded by observation and experiment since the war.

Laborers are offered from $6 to $16 per month, with rations, and mechanics from $2 to $3 a day. Cropping on shares is very generally practiced. In some instances, the renter agrees to give one bale of cotton for the rent of eight or ten acres of land. In others, the laborer furnishes his own provisions and the labor, and gets one-half the produce, the land and everything else being furnished by the landlord, who gets the other half. In others the landlord furnishes everything, but the labor, and receives three-fourths of the crop.

There is some immigration, mostly from Mississippi, Alabama and Texas. No efforts have been made to secure immigrants.

The section throughout is well adapted to stock raising. The soil everywhere is covered with succulent weeds, bushes, vines and nutritious grasses, that afford abundant food for cattle, sheep, goats and horses. The numerous oak, pine and beech trees, and muscadine vines produce abundant mast for hogs. Horses are rarely fed, except when in use, and other kinds of stock are reared for market without feeding. Nearly every farmer is engaged, to some extent, in stock raising, and there are many herds of cattle. Stock cattle are valued at $10 per head, sheep at from $1 50 to $2 per head, and hogs from fifty cents to $1. The profit of stock raising is simply enormous; in some instances more than 50 per cent, has been realized.

Little has been accomplished in the direction of manufacturing; but in the hill region there are many creeks having water power sufficient to propel saw and grist mills and cotton gins, and two or three having sufficient power to run cotton and wool factories. There are saw and grist mills and gins run by water, and several propelled by steam—all of which are doing a good business.

New Orleans is the best market. Produce is shipped by steamers on the Ouachita, Tensas, Little, Black and Red rivers, and reaches New Orleans in one or two days.

Apples, pears, plums, strawberries and grapes, are the fruits most suitable for cultivation. Blackberries, dewberries, mulberries, muscadines and other fruits are found everywhere growing wild and in great abundance. Fruit growing, as a business, has not been engaged in extensively.

Peas, beans, cabbages, radishes, squashes, okra, lettuce, onions, beets and all other vegetables suitable to the South, can be grown in abundance and profitably.

Silk culture has never been engaged in, but from the facts that the climate is suitable, that the mulberry and other growths upon which the silkworm feeds, flourish here, and that this is the habitat of caterpillars similar in nature to the silkworm, it is believed that, as an industry, silk culture could be made profitable.

This is emphatically a honey making country. Thousands of swarms of wild bees are found yearly in the forests, and at nearly every farmhouse may be seen hives in which these busy little creatures are depositing their valued treasures.

The whole country, being covered with nutritious growths, milk, butter and cheese can be produced at little cost. All kinds of poultry are easily raised.

Oak barks of the best kinds, and other tanning materials being plentiful, and hides abundant and cheap, tanning could be engaged in profitably. Saw mills, lumbering, cotton, wool, and wagon factories could be made profitable.

The many rivers, creeks, bayous and beautiful lakes are in the fall, winter and early spring the resort of thousands of geese, brants and ducks, and at all times are teeming with edible fish, such as trout. bass, perch, bream, cat, drum and buffalo. These are easily caught with lead and line, and contribute both to the pleasure and profit of the people. In the forests are thousands of deer, squirrels, rabbits and other game.

An industrious man can cultivate about fifteen acres in cotton, corn, peas and vegetables, on which he can produce from eight to ten bales of cotton, from 150 to 300 bushels of corn, potatoes and vegetables for family consumption; and when we add to this the profits of his catttle, hogs and horses that subsist on the range, in most places, the whole year, it is plainly to be seen that the profits of farm labor are simply extraordinary, when compared with that of the States of Europe or the older States of the Union. The truth is, there is probably no country where a living can be made with less exertion, and the exemption which this affords from the great law of labor, has really injured our people by paralyzing their energy.

Previous to the late war, rich swamp lands lying principally along the Ouachita, Black, Tensas and Little rivers, and on Sicily Island, had been purchased by wealthy slave owners, were held by them in large bodies, and could not be bought for less than from $25 to $75 per acre. Large bodies of these lands had been brought into cultivation, costly improvements had been erected upon them, and they were the seats of prosperity, wealth and luxury, and in many instances of intelligence and refinement. The hill region was also gradually settling with prosperous and independent small farmers. The long and bloody war, during which this was the theatre of predatory strife, and the unhappy and unwise administration of the reconstruction laws, devastated the country, drove many of its best citizens away, impoverished those that remained, and repelled immigration.

ST. HELENA, TANGIPAHOA, WASHINGTON AND ST. TAMMANY PARISHES.

These four parishes lie to the east of East Feliciana and Livingston, and are bounded on the north and east by the State of Mississippi. Pearl river marks their extreme eastern boundary.

These parishes are located in the great long-leaf pine region, and their topography and general characteristics are similar.

The population of this section are *farmers* rather than planters. They are an independent, hard-handed people, who do their own work and make their own crops, generally without the aid of a commission merchant. They grow everything necessary for home comforts except tea and coffee.

Their farms are generally along the creek and river bottoms, and their flocks and herds run at large in the pine woods. This is essentially a white man's country.

There is good and sufficient railroad, river and lake transportation. The Chicago, St. Louis and New Orleans Railroad intersects Tangipahoa

from north to south, and the New Orleans and Northeastern Railroad passes through the eastern borders of St. Tammany.*

Good water is found in abundance everywhere—all clear, cool and pleasant to the taste. In the vicinity of Covington, St. Tammany parish, are many fine mineral wells and springs. The Abita springs, three miles from Covington, are the resort of a large and constantly increasing number of invalids, and many of the wells in Covington have acquired quite a reputation by their numerous cures.

The thermometer rarely reaches 88° in the summer, or falls below 40° in winter. The nights are cool, and the air seems to possess remarkable curative powers in all diseases of the lungs and throat. A well-authenticated case of sunstroke has never been known in the pine woods.

The entire section is heavily timbered. Pearl river and Bogue Chitto forming the eastern boundary, have bottom lands along their banks varying from one to three miles in depth. The other numerous streams have but a narrow skirt only a few hundred yards in width. Tangipahoa, Bonfouca, Bayou Liberty, Bayou Lacombe, Tchefuncta, Abita, Pontchatoula and Bogue Falls are all navigable streams, some of them being navigated for twenty miles above their mouths. The entire region is filled with streams of clear, cold water, and there is scarcely a spot where fine well water cannot be found at a short distance from the surface.

With the exception of the creek and river bottoms, and the swamp above Lake Pontchartrain, the surface is covered with a heavy and valuable growth of pine. Numerous creeks afford a cheap and easy mode of carrying the logs, wood, charcoal, tar and other products of this forest, to the New Orleans markets. In the bottoms of the creeks and rivers, magnolia, beech, gum, oak, hickory, ash, cypress, dogwood and holly abound. Along the lake coast are valuable tracts of live oaks. In the bottoms of Pearl river and Bogue Chitto, vast quantities of white oak timber are found

The bottom land is productive, and similar to that lying along all the small creeks and bayous of the State. The pine lands generally have a surface soil of sandy loam, varying from six to twelve inches in depth, under which is found a stiff clay, impervious to water. The clay is of a fine quality for making brick. A very fine article of pottery has also been made from it.

Sand suitable for the manufacture of glass is found in large quantities.

Nearly all the religious denomination are well represented, the Catholics, Methodists and Baptists. Every ward has either a public or private school—sometimes both.

Around the towns, colored labor is generally employed. Most of the farming is done by the white men, who generally own the land. Industrious white or colored men can always find employment at about $15 per month with board. If they prefer to work the crop on shares, they get one-quarter, farmer furnishing everything.

The supply of mechanics is equal to the demand. But there is a great demand for reliable labor, either white or colored. White men, both native born and foreign, can, and do, work all the year in the field with safety.

Both land and living are so cheap that there is no place where the immigrant can make a start on less money. Immigrants from the North or any portion of Europe would be eagerly welcomed. Suitable land can be obtained from the Government under the homestead laws,† and the timber for fences and buildings will be found on the land.

Neither cattle nor sheep are fed during the entire year. Both are

*Covington is now connected by railroad with that railroad.
† Much has been disposed of since then.

profitable, but sheep pay far better than cattle. At present, the business of stock raising is very badly conducted. Many stock owners do not see their stock for months at a time. No herders are ever in charge of the sheep, and they are turned adrift at the mercy of hogs, dogs and buzzards. Consequently the losses are heavy, and yet with all these drawbacks the business is very profitable. There are no burrs to injure the wool, and they do not seem to suffer from any diseases. The herds of cattle vary from forty to five hundred head in number, and sheep from one hundred to one thousand.

Cattle yield 25 per cent profit, sheep from 45 to 50 per cent, according to the amount of attention paid to them.

The streams afford plenty of water power for manufacturing, but there are no manufactories. The water is remarkably clear and pure, and many fine locations could be found for paper manufactories.

New Orleans is the nearest and best market. It is reached in a few hours by rail, steamboat or schooner.

Figs, pomegranates, peaches, apples, pears, plums, cherries, grapes, pecans and walnuts grow everywhere. Strawberries are profitable. Along the lake coast the orange thrives very well, and a good many orchards have been recently planted. Several varieties of the grape have proved very profitable, and some German and French citizens have commenced making wine on a small scale.

All kinds of vegetables grow well. The health of the pine woods is yearly attracting large numbers of people to the towns. This affords a ready market for all the vegetables and fruits that can be raised by those engaged in this business. The supply is not near equal to the demand.*

The nearness of the New Orleans market and the cheapness of transportation render this section a fine location for almost any industry.

When disease prevailed to an alarming extent among the silkworms of Italy, the government of that country sought to renew the stock of worms by importing eggs from other countries. For this purpose a premium was offered for the finest eggs. Mr. John Rocchi carried off this premium, with eggs raised at his place in Covington. All varieties of the mulberry flourish with great vigor, and there is no doubt but silk could be produced with profit.

Bees succeed well and produce fine honey.

The fine grass range makes the production of milk and butter very profitable. Poultry require but little feed or care.

All the bayous and rivers are well stocked with every variety of perch, black bass, catfish, buffalo, rockfish and suckers. In Lake Pontchartrain, sheephead, redfish, croakers, flounders and other varieties of salt water fish are found.

Game is abundant. Deer, turkeys, squirrels and quail, ducks, woodcock and snipe.

An industrious man can cultivate from fifteen to twenty acres in mixed crops, say four in cane, four in cotton, ten in corn, two and a half in sweet potatoes. Besides these crops he can cultivate several acres in red oats, they being planted in the fall and reaped in June. In addition to this work, he can attend to a small stock of sheep and cattle. A committee of citizens send the following endorsement of these parishes:

"Population, mostly white; nationalities, American and mixtures from the different countries of Europe. We have English, Scotch, Germans, Swedes, French and Irish. The general character of our inhabitants will compare favorably with the best in the United States.

To the north are rolling piney-woods, interspersed with numerous rivers, creeks and branches. The principal growth is pine, mostly long-

* This language is not applicable to the business now.

leaf yellow, oaks of several varieties, gum, poplar, magnolia, beech, bass-wood, maple, sumac, hickory, dogwood, etc., on the water courses, birch, elm, cherry, etc., a small quantity of cypress in the small river swamps.

The lands on the river banks, from a quarter to a mile wide, are nearly all cultivable. Our rivers and creeks are subject to overflow from heavy rains in the spring and late in the fall, for a few days only. The uplands are in general sandy, with good clay sub-soil. The branch, creek and river flats are the cream of the uplands, washed off by the rains; they are a dark, sandy loam, with good clay sub-soil.

There are many fine mill sites, affording sufficient water power for factories and machinery. A number of saw mills and cotton gins are now run by them. The quality of our soil is generally productive.

No minerals developed as yet. Small quantities of iron ore can be seen in many places.

We can grow almost any kind of crops, including many from the tropics. Cotton is cultivated by the majority of farmers as the *money crop*. On land not fertilized, the average yield is from one-half to three-quarter bales of cotton per acre. Land well fertilized and cultivated will yield, with favorable season, one bale weighing from 400 to 500 pounds.

The average crop of corn on lands not fertilized is from ten to fifteen bushels. By fertilization, some farmers have made from forty to fifty bushels per acre, worth at home from fifty cents to one dollar per bushel.

Sweet potatoes, cultivated for home use, are a profitable crop, yield from 100 to 300 bushels per acre, worth from twenty-five to fifty cents per bushel at home. Irish potatoes yield about the same. We can raise two crops a year.

Oats yield about the same as corn. Sugar cane is generally cultivated in small patches. Little portable mills and copper evaporating pans are resorted to in the manufacture of syrup.

Parties having mill and fixtures go from place to place in the fall, and grind on shares, usually one-sixth for use of mill and man to tend it. When the miller furnishes team and help the toll ranges from one-fourth to one-third.

We can make, with very little work, one hogshead of sugar and four barrels of molasses per acre.

Sorghum cane produces well, and makes an excellent feed for raising hogs. It will make from 60 to 100 gallons per acre, worth 40 and 50 cents per gallon. It is not cultivated much.

Rice is cultivated with but little work on new-ground lands.

Broom corn will do splendidly here.

Hops do well.

Tobacco will do as well here as anywhere. Three cuttings a year can be obtained.

Crab grass and pea hay are generally cut and saved for stock here.

Pea vines plowed in just as the pea turns to ripen is the best and cheapest fertilizer we can use, and by actual test, it will redeem barren lands in three years to their primitive state of fertility.

Almost every farmer has some fruit trees, generally peaches. The climate and soil are well adapted to the culture of a large variety of fruits—quinces, pomegranates, peaches, pears, some few varieties of apple, plums of every variety do well, figs never fail, some few varieties of grapes do exceedingly well; watermelons, exceedingly fine, often weighing from 40 to 50 pounds; pumpkins and kershaws are excellent.

Jute will do well by actual test.

Our climate is delightful—the doctors often say distressingly healthy.

Atmosphere pure and salubrious at all times. We have no epidemics in our parish. Our mortality list will compare favorably with any other section of the United States. We are much less liable to sunstroke than in the State of New York; in fact, sunstroke is hardly known here.

Our drinking water is as good as anywhere in the world; it is obtained from numerous bold crystal springs, wells and cisterns.

Lands of all kinds can be bought, woodland and improved lands—prices varying from $1 to $10 per acre, according to locality and improvements. Terms can be made in most cases to suit purchaser. Thousands of acres of unsurpassed saw-mill timber can be had at the Government price, per acre, $1 25, or even less.

The usual contract for labor is, for the farmer to furnish the land, teams, feed and implements necessary to cultivate and gather the crop, and give one-half of all the crops raised.

When rations are furnished, the laborer gets one-third of the crop. When wages are given, the range is from $10 to $15 per month, with usual rations. When parties rent, they pay according to value of land, condition of fences and improvements, etc.; easy terms can be made.

This is a great hog country. They generally grow fat in the woods.

From the observation of some of our oldest settlers, every third year the beech trees are ladened with fruit. Oak and pine masts are generally plentiful.

The natural facility and ease of production, of forage of every kind, with mildness of climate and unlimited wild pasture, makes this naturally a fine stock country. Horses, mules, cattle, sheep, goats and hogs can be raised here with as much profit as anywhere.

The average price of native sheep is $1 50 per head; beef cattle, yearlings at home, from $5 to $6 per head; milch cows from $15 to $20 per head.

The cost of raising is comparatively nothing, as in this climate stock can get along without wintering. In the months of February and March they need some little attention. Hence stock raising with us is nearly all profit. The manure alone will pay for the attention given to stock. Milk, butter, hides and wool are a great source of profit.

Lumber sells at the mills from $8 to $10 per 1000 feet.

We have good home markets in our numerous country and village stores for everything we raise.

The woods proverbially are a natural flower garden the year round, and every variety of tame, native or imported plants that can be cultivated in the United States, will do well here—but few needing any winter protection.

We have turkeys, rabbits, squirrels, deer, opossums, coons, ducks, woodcock, snipe, quails, etc.

We have a fair supply in our streams, including perch, trout, catfish, buffalo, gaspagou, soft-shell turtles and hard-shells of several varieties.

We have a variety of native song-birds—the American canary, lark and mocking bird, the imitators of all birds, filling the air with its delightful warble day and night; the oriole, wren, humming-bird, blue-jay, thrush, blue, red and blackbird, and many others of variegated colors.

We invite honest, well meaning, white immigrants from all quarters of the globe. They can find employment here at remunerative wages, and can work all the year round in the fields with perfect safety.

Capitalists and manufacturers are needed to develop the incalculable resources of our country. Good mechanics get fair wages.

We have had but little immigration as yet; we have a few from other States in the Union, a few from Sweden, Germany, England, France and Ireland.

It would be gross disparagement of these parishes did we not chronicle some of the changes that have taken place in parts of the last area, since Col. Harris wrote the above. In general terms, we have averted to it in the former part of this pamphlet, where we alluded to the development that has taken place in Louisiana within the last two or three years. For this, the Illinois Central Railroad deserves especial commendation. Their agents, assisted by numerous co-workers in their own behalf, have advertised the area in question with such effect, that several new towns have been started, and several old ones have developed to a remarkable degree. From at or near the State line, on the Southern branch of the Illinois Central Railroad (Southern branch), as far South as Pontchatoula (on the same railroad), there is hardly a locality in the United States where the raising of small fruits is in greater rapidity of development. This is mainly confined to strawberries just yet, but raspberries have been successfully tried; and there is a tendency to the culture of peach and pear. In strawberry culture alone, hundreds are engaged; and there are several thousand acres "set" in that fruit. Vegetable raising is also progressing finely. The produce is raised early for the markets of Chicago, St. Louis and other Western cities.

Tangipahoa, Arcola, Amite, Independence, Hammond and Pontchatoula are older places that have been greatly resuscitated or developed; while Kentwood, Roseland, Happy Woods (and perhaps other towns, for they spring up so fast that one can hardly keep pace with their birth) are new towns of hardly a year old.

And this progressiveness is not confined to the railroad. On either side, for quite a distance, the wave of immigration has spread, and on the Mississippi Valley Railroad, west, fruit culture and vegetable raising are asserting themselves; and in St. Tammany parish, near Covington, there are marked interest and good development.

Of course, values of lands have greatly enhanced; and it would be idle to undertake to state prices. Home-seekers must make their own investigations in this regard.

The following parishes (except East Feliciana), are placed by Prof. Lockett in the category of "Bluff Lands." The descriptions are from a pamphlet issued by the late Commissioner of Immigration, Hon. Wm. H. Harris:

WEST CARROLL, RICHLAND AND FRANKLIN.

These parishes are situated in the northeastern part of the State, between the Mississippi and Ouachita rivers.

The formation of their lands are identical. The larger part being bluff lands, while the lands bordering Bayou Macon on the east, and Bœuf river on the west, are alluvial.

The Shreveport and Pacific railroad intersects Richland parish, and

its principal towns are Delhi and Rayville, containing from two hundred to three hundred inhabitants, with schools, churches and all the accessories of civilization required by an intelligent and refined community.

These parishes are well watered in every part. The principal streams are Bayous Bœuf and Macon, which are navigable in winter and spring by large steamboats, affording ample transportation to market for all the products.

The lands bordering the bayous are as good as any in the State, the actual yield, according to the census report, being four-fifths of a bale of cotton. While this is the average yield of the entire parish, the yield of plantations on the bayous in the alluvial lands often reaches one and a half bales of cotton per acre and fifty bushels of corn.

Only a small proportion of these lands is under cultivation, although there is not an acre of barren land in its limits. All the land not under cultivation is covered with a heavy growth of magnificent timber, among which is found the oak, ash, elm, gum, black walnut, beech, magnolia and other growths of alluvial and bluff formations.

The principal productions are cotton, corn and sweet potatoes; oats, rye, millet and many of the domestic grasses grow well.

Floyd is the county site of West Carroll, and Winnsboro of Franklin parish.

West Carroll lies between Bayous Macon and Bœuf, but includes only a narrow belt of alluvium lying along these streams, the main body being an upland ridge similar to the Bastrop hills, constituting the most northerly portion of the upland peninsula, which, farther south, forms part of the parishes of Richland and Franklin, under the general designation of "Bayou Macon Hills." This ridge rises rather abruptly from the bottom plain of the Bayou Macon to the height of twenty feet. It is composed of a sandy, yellow loam, and its eastern portion is timbered with short-leaf pine. In the western, the post and black-jack oaks predominate over the pine. The westward slope, towards Bayou Bœuf, is gentle, and the land improves as we descend; the yellow loam subsoil being apparent for some distance into the Bœuf alluvial plain. The soil of the latter is highly productive.

West Carroll is bounded on the north by the State of Arkansas. The county site is Floyd.

The topographical formation of Richland and Franklin is the same. Alluvial and Bluff lands.

These three parishes extend southward from the Arkansas line, a distance of 90 miles, to the Ouachita river.

The general face of Richland parish is level, with an occasional elevation of a narrow strip of land eight or ten feet above the general surface. In the southwestern part, there is a small portion that is prairie. The bottom or swamp lands lie upon the streams and are regarded as the most productive, producing one to one and a half bales of cotton per acre in good seasons, and corn and other products in proportion. The kinds of timber in abundance are oak, gum, hickory, pine, ash, dogwood, birch. Nearly every species of tree found in the South is here.

The soil of the parish is well adapted to the growth of all vegetables and plants. There are as fine vegetables produced for home consumption as can be grown in any portion of the Union with little labor. Well water is found by digging from fifteen to twenty-five feet. It is pure freestone or mixed with lime, iron, copperas, alum.

There can be bought almost any description of land here that is to be found anywhere in the State, and as productive. From the rich, loose, mellow ridges, easily cultivated and paying handsome returns, to the

rich bottom and alluvial soil, which is inexhaustible, where immense crops of corn, cotton, sorghum and potatoes are produced in fabulous quantities. The rich hammock lands only await the axe and spade to lay bare the untold productiveness of these hitherto neglected mines of wealth. The pine lands are easily brought into cultivation and pay large dividends. This soil is more silicious than any other to be found, and quite durable, lasting and producing fine crops for fifteen or twenty years without manure.

Many large landholders have both improved and unimproved lands that they would dispose of readily; improved from $5 to $15, unimproved from $1 to $5 per acre.

Fruits and vegetables of all kinds which grow in the temperate zone are plentiful at all seasons.

The labor upon large plantations is generally performed by negroes. The share system generally prevails, but when wages are given they range from $12 to $15 per month.

Many white men cultivate small farms, with their own families, with an occasional hired hand. They are almost universally prosperous and out of debt, and are really the most independent class of people, raising their supplies at home.

The health of this section will compare favorably with that of other portions of the South, and the climate is not subject to violent extremes of heat and cold. Foreigners and immigrants from other States already here have found no difficulty in field work at all seasons. The people desire immigration and will welcome all classes and creeds.

All forms of religion are tolerated and encouraged, and ministers of the gospel are highly respected.

Educational facilities are as good as any in the State. Public schools are kept open three to five months in the year. In most instances when the public schools close, private schools are continued during the remainder of the year.

Market facilities are good. On the north, Vicksburg, Shreveport and Pacific Railroad, east Bayou Macou, on the south and west, the Tensas river and Ouachita river.

Churches, schools and other evidences of refinement and civilization are seen throughout the entire section.

Comparatively a small portion of these lands are cultivated. The section offers a grand field for capital and immigration, both of which would be welcomed by a kind, generous and hospitable people.

LIVINGSON PARISH.

The formation of the bluff lands in this parish is similar to that of East Baton Rouge.

Most of the cultivated land lies along the Amite, Tickfaw and Bayou Barbary, Gray's creek and the Colyell. Its forests, which cover the largest division of its area, still abound in timber of great marketable value. In the eastern division, on the water-shed draining into the Tickfaw, the forests, although growing magnolia, beech, oak, gum and hickory in large quantities, are still interspersed with a considerable growth of pine. In the western division, or on the water-shed draining into the Amite river and Lake Maurepas, pine is rare, and magnolia, oak, beech, gum, hickory and cypress form the staple of forest growth. Along the margin of the lake there are some very productive farms under cultivation; so, also on Bayou Barbary and its three prongs, on all of which soil of great natural fertility may be had in abundance at Government prices, or at rates almost as cheap from the proprietors.

Throughout the southwestern division, the productive wealth of the parish is derived chiefly from the forests and swamps, and this is the

case as high up as Port Vincent. The parish on the east extends into the long leaf pine flats.

The Hon. H. Skipwith writes to the New Orleans *Times-Democrat:*

"A few miles below Port Vincent, seated along the margin of the river Amite, is a hamlet universally styled 'the French settlement.' A *côte joyeuse*, on which many descendants of *émigrés* from La Belle France enact their happy role, composed almost of equal parts of work and fun, for so wags the world in the French settlement. Each *habitant* has his cane, corn, oats, rice and potato patch, occasionally, too, a patch of cotton, and each in almost equal proportions, (furthermore no '*grande home de province*' in the French settlement), has his flock of goats and sheep, his hogs and his herd of cattle. Those enumerated are all behind him; in front he has as much good cypress timber as he can cut and float in the next half century. Altogether, with the combined products of his pastures, of his flocks and herds, and of his raids upon the cypress forests in front of him, I should say that the habitues of the French settlement can well afford to spend, as they do, every Saturday night in fiddling and dancing, and to enliven the interval between dances with a bottle or two of claret. It is an isolated colony, and there is no better community in the world. Some of their peculiar characteristics grow, perhaps, out of their isolation, viz: indifference about the great events which are stirring other parts of the world, dislike of anything which smacks of change, particularly in the matter of a reformation of religions. Such a community, while reliable to make a resolute defense of its home interests, would probably contribute a scant quota to an army in the field. But with all its peculiarities, it is a happy, virtuous, law-abiding community. If it contributes not much to the revenues of the commonwealth, it costs the community nothing to enforce the public justice against its offenders, for it has none."

From Lake Maurepas up to the Amite, as high as Port Vincent, there are lands in large bodies which in natural strength of soil are surpassed only by the alluvial lands of the Mississippi valley—lands which in choice spots will produce two hogsheads of sugar, 2500 pounds of seed cotton, 35 barrels of corn and 50 bushels of rice to the acre. The same estimate of the capacity of the soil will apply to the fresh, well-drained lands of Port Vincent, up to the northern boundary of the parish; such lands are still to be found in large bodies along the Amite and in the valleys of Gray's creek and the Colyell. Much of the land, however, which is now cultivated, has been in cultivation for many years, and its capacity has been much reduced by years of neglect and maltreatment.

EAST AND WEST FELICIANA PARISHES.*

These parishes are bounded on the north by the State of Mississippi, on the 31° parallel of latitude. West Feliciana lies on the east bank of the Mississippi river, and contiguous to East Feliciana on the east. A narrow strip of land along the Mississippi river is alluvial, but the remainder of the parish is composed of *bluff* and *good uplands*, with the exception of a strip of East Feliciana, which extends into the long-leaf pine region on the east.

There is, perhaps, no section in the United States that offers greater inducements to the settler than these parishes. Many of the negroes have left the high, healthy table lands for the alluvial bottoms, and there are many thousands of acres of old turned out fields, that have grown up in wild grasses. These afford pasturage to cattle, sheep and hogs, which increase and multiply with very little care.

*East Feliciana is placed by Lockett in the category of the "Good Uplands;" but, as it is not considered wise to dissociate it from Col. Harris' description, we give description here.

Lands may be bought, in small or large tracts, from $1 to $5 per acre. A citizen of this section writes:

No part of Louisiana is favored with a more complete system of natural drainage, and away up on the Tunica hills there are landscapes as bold and imposing in their wild grandeur as the average of Switzerland scenery. These Tunica hills, besides their romantic beauty, possess a quality of soil as attractive to the eye of a practical farmer (they being knobs founded upon an inexhaustible limestone base) as beautiful landscapes are to the eye of the transient sketcher; but even here the natural capacity of the soil, which is fully equal to one and a half hogsheads of sugar, to one and a half bales of cotton, and to forty barrels of corn to the acre, is partially obscured by negligent and inadequate cultivation.

Notwithstanding the admitted adaptability of the Tunica hills to the cultivation of the old style standards of cane, cotton and corn, the immigrant, when he comes, may—and I think he will—endeavor to apply the virtues of the limestone to orchards and vineyards, if thereby a more profitable industry can be evoked.

The health of this section is as good as that of any part of the United States. The people are intelligent, educated, refined and hospitable. Public and private schools and churches of all denominations are located in every neighborhood. Transportation facilities are afforded by the Mississippi river, and by the St. Francisville, Clinton and Port Hudson and Mississippi Valley Railroads. The county sites are St. Francisville and Clinton, both beautiful country towns, noted for the refinement and cultivation of the people.

Fred. Buto, an immigrant from Dantzig, West Prussia, is at the head of a prosperous German settlement near Clinton, East Feliciana parish.

EAST BATON ROUGE.

East Baton Rouge fronts the river one hundred and thirty miles above New Orleans.

The city of Baton Rouge is the parish site and the capital of the State. It is built on the extreme southern point of bluff land that touches the Mississippi river and which extends south from the Alleghany mountains.

The city of Baton Rouge was incorporated in 1820, and has a population of 8000 inhabitants. The parish was organized in 1811, and has now about 21,000 inhabitants.*

The lands along the Mississippi river are alluvial, of which about one-third are in cultivation, the remainder being pasturage and woodland. The timber found here is principally cypress, gum, oak and many small varieties of trees. The other portion of the parish is called the highlands, that is, land not subject to inundation by the Mississippi river. The forest growth is of great variety, comprising all kinds of oak, gum, magnolia, poplar and beech, interspersed with much undergrowth. The soil is as various as the forest growth, ranging from poor to very fertile; but under the energetic manipulation of the progressive farmer, will yield a rich reward to the husbandman.

Upon these lands all the staple crops are cultivated successfully, viz: cotton, cane, corn, potatoes, etc. The yield of cotton is one-half bale per acre, to one and a half bales. The yield of cane is one hogshead of sugar, to three hogsheads per acre. The average per acre of corn is twenty bushels to forty. So with all productions of the soil, the maximum amount is made according to the quantity of fertilizer and the quality of brain used. The city of Baton Rouge affords a very limited

*This estimate was made several years ago.

market for the products of the parish, the principal market being New Orleans and the Western cities.

There are many small streams passing through and bordering on the parish, which afford sufficient drainage to all its lands. They are the Amite, Comite, Manchac, Bayou Fountain, Ward's creek, Montesano, White's bayou, Redwood, Blackwater, Sandy creek, and many other minor water courses. In these streams are to be found many kinds of fish and water-fowl.

The health of the parish has always been regarded good. The military post located at Baton Rouge shows the best health record of any post in the Southwest. The thermometer rarely rises above 90°, or falls below 20° F., and when either extreme is reached, it lasts but a few days. The leading nationalities of the world are represented in our population. The English, French and German languagues being spoken principally—the English being the language in which business is transacted. The general character of the people is quiet and industrious, and they would give a hearty welcome to all immigrants who are likewise disposed.

There is land for sale and rent. In all cases they are reasonable.

The principal religious denominations of this parish are the Catholic, Methodist, Presbyterian, Episcopalian, Baptist and Israelite. All have places of worship in the town, and some in the various neighborhoods in the parish. Educational facilities are very good. The State University and Mechanical and Industrial colleges are located at Baton Rouge, under the direction of an able corps of professors, where all the branches of a polite and practical education can be acquired at a small cost, besides other male and female seminaries quite adequate to the wants of the community. Public schools are in a progressive condition and are supplemented in every neighborhood by private schools. In addition to this there are two State institutions that deserve notice, viz: the Institute for the Blind and the Institution for the Deaf and Dumb.

The facilities for reaching market with manufactured and agricultural products are unsurpassed. The parish lies for nearly forty miles upon the Mississippi river, affording daily communication with New Orleans and the Western cities. The New Orleans and Pacific Railroad affords communication with the Pacific States, and the Mississippi Valley runs direct to Memphis and New Orleans. The southern portion of the parish carries on an extensive trade with New Orleans by steamer across the lakes, up the Amite river to Hope Villa. The "small planters" produce from ten to fifty hogsheads of sugar, and have been so successful as to have attracted market attention. John Picou, one of the pioneers in this section in this industry, has never produced less than two hogsheads of sugar and frequently three hogsheads per acre.

Wages for an expert field hand, on sugar plantations, are $18 per month and rations. Where the share system is adopted, as on cotton plantations, the laborer gets of what he produces one-third and rations, or one-half and feeds himself. Good mechanics get $3 per day, and are in demand.

A source of considerable profit to the planting and farming community is stock raising. Though not pursued as a separate business, is followed to some extent by every farmer. It is a business in which nearly all is profit. Nearly every one has his herd of cattle and hogs. These cost nothing for the raising, except herding, marking and branding, and this can be done without encroaching upon the time to be devoted to agricultural pursuits. There is a good market for all the butter the good housewife can make, so that as a collateral pursuit, stock raising is profitable adjunct to farming operations.

There is probably no place in Louisiana offering greater advantages

for the establishment of factories of various kinds, than the City of Baton Rouge. Situated in a healthy locality, on land never subject to overflow, with a fertile country around it, upon the Mississippi river, and connected with the vast country lying west of that river by the Southern Pacific Railroad, it would seem to be marked out by nature for an eminent future, the realization of which is near at hand. Here stands the immense building of the Louisiana Penitentiary; within those walls are contained the best of machinery for the manufacture of woolen and cotton goods, with 200 looms and the necessary appliances for a complete factory. This factory can be leased on very favorable terms. An opportunity is here afforded to capitalists of very rare occurrence. The country around would furnish all the cotton necessary at one-half cent less than New Orleans prices, and with a population of 8000 inhabitants, the City of Baton Rouge would furnish all the operatives necessary for a factory of 400 looms.

There is established here a cotton seed oil mill, and so lucrative has been the business that the proprietors are erecting additional apparatus for refining the oil.

In iron work there is a factory engaged in the manufacture of sugar machinery, steam trains, evaporators, etc.

There is room enough for several of these factories. For the support of the operatives engaged in these factories, the country will afford an abundance of vegetables and fruits at reasonable prices.

We now introduce some matter on the prairie parishes. It is entitled "The Soil and Products of Southwestern Louisiana, including the Parishes of St. Landry, Lafayette, Vermilion, St. Martin's, Iberia and St. Mary's." It was issued by the United States Department of Agriculture in the year 1884, and written by R. E. Rapley, special agent:

Seventy-three miles west of the city of New Orleans, the Morgan, Louisiana and Texas Railroad crosses the Bayou Bœuf, the eastern boundary of the parish of St. Mary's, and several miles farther west is Brashear City, on Berwick's Bay. About 110 miles west of Berwick's Bay is the mouth of the river Mermentau, which receives the waters of the Nez Pique, through the Upper Mermentau, Lake Arthur and Lake Mermentau. The river and lakes form the western boundary of the parishes of St. Landry* and Vermilion. From the northern boundary of St. Landry to the Gulf coast the distance is about 100 miles, and from Belle river, the eastern line of the parish of Iberia, to Lake Arthur, the western limit of the parish of Vermilion, the distance is about 80 miles. The southern boundary of these parishes is in latitude 29½°—almost half a degree south of the latitude of New Orleans. The northern limit of St. Landry reaches latitude 31°, near the true cotton belt of the Southern States. The five parishes, St. Mary, Iberia, Vermilion, St. Martin and Lafayette, were originally called Attakapas, and are now called Attakapas parishes. The name was taken from one of the Indian tribes that inhabited this country.

All trees here grow to an enormous size. I measured a live-oak stump which was 9 feet in diameter. Cypress furnishes the lumber for the country. Being light and durable, when pressed and polished it makes very rich trimmings, and, in fact, nearly all the finer classes of houses are finished with it.

The trees are all draped with moss, which grows in great abundance, and forms one of the industries of this country, and really makes the

*Of Acadia now.

laboring man independent; for a man with ordinary industry can easily earn from $1 50 to $2 50 per day gathering and preparing it for sale. The market appears to be as certain as our wheat market.

SOIL.

The prairie and all the level lands I visited in this locality are of alluvial origin, with a surface soil of from 3 to 4 feet of almost inexhaustible fertility, formed and kept up by the annual decay of vegetable matter and overflows from higher altitudes. *Some of this land will produce four crops of hay a year.* I allude to Bermuda grass, which makes the best hay that is made in this section. A slight variation is found in the subsoil. Mr. Jefferson informed me that he dug through clay at a depth of 2 feet from the surface in sinking his wells on the prairies, to be worked by windmills. In this vast prairie, containing three or four millions acres, there is a series of islands that are not surrounded by large and distinct rivers, but by bayous, which are simply little streams that drain them and part of the adjacent prairie. On these islands the soil is good and easy to cultivate, but of course not so rich or so deep as that of the prairies. As a general rule the soil runs as follows: First, rich vegetable mold from four to six inches deep, next loam, then sand, and lastly clay. So far as the soil is concerned, I know of nothing that could not be raised here, except timothy† and some small fruits that fail in midsummer if the season be dry.

Although the prairies are wet during the winter and spring months, you never find them sour or boggy, and the sweet, nutritious grass never ceases to grow, and I have noticed the cattle foraging when the surface was covered with water. In going from place to place the residents drive right through the ponds and lakes after heavy rains in March in preference to going around them. No matter how deep they look to be, there is but little deviation from the level. The wheels hardly ever sink beyond the depth of 2 or 3 inches, even when wagons are loaded. The manner in which these prairie lands is drained is by open ditches cut to natural ponds, as they are termed by the natives, or to the bayous. It would be impossible to drain these soils by blind ditches. There is almost an endless variety of vegetables grown here, and the house gardens can be so planted as to yield fresh vegetables of some kind the year round. They all seem to grow to perfection, and yield abundantly. I will give more in detail of the list of vegetables, the yield and manner of cultivation, in my report of the different parishes. The people live largely upon sweet potatoes and yams, together with fish and game. It seemed to be the market gardens only that were stocked with any great variety of vegetables. It was a very agreeable sight to see how thoroughly these gardeners attended to their crops after noticing with what carelessness the farmers attended to their kitchen gardens.

Not much wheat is grown. The yield of straw is very heavy; the yield of grain generally light. They sow nothing but Spring wheat.

Farmers turn their cattle on the grain fields, chiefly oats, about the middle of February, and let them graze two or three weeks. This furnishes good pasture and does not seem to interfere with the yield. I failed to obtain the average yield, but in reply to my questions a farmer told me he expected to make at least forty bushels to the acre. The Texas or other rust-proof varieties are generally sown, because they are best adapted to the climate and less susceptible to rust and insects. Rye is seldom grown for the grain, but is sometimes sown in the fall for winter and spring pasturage. When grain is sown in the fall the land is thrown up in dead furrows; that is, throwing it up in beds about eigh-

†This is an error.

teen or twenty feet wide, with an open or dead furrow between, which holds the water during a wet season.

Corn is planted in rows or ridges, five and a half feet apart. They call them ridges because they are thrown up very high. These drain the top very thoroughly, and the crop is kept moist by the water remaining in the furrows until the season is pretty well advanced. All the fields I noticed seemed to be only one way; I mean they are not crossed-plowed, as I have generally seen corn worked. The corn, when gathered, is housed in the shuck.

CATTLE RAISING.

One of the principal industries of this locality is raising cattle for the butcher, and very little attention is paid to growing fine stock for dairy purposes.

Cattle raising could be made more profitable than it is by dividing the prairies into smaller pasture fields and by cutting and curing thousands of tons of hay that go to waste, to be fed from the rack when the pasturage grows short. During at least nine months in the year the grass is so strong and luxuriant that the cattle tramp down and destroy more than they consume. It has only recently been discovered that the sea marsh in this part of Louisiana affords as good pasturage as there is in the world. Strong, nutritious grass grows in great abundance, resembling very much in taste and appearance what is known in the middle States as red top, only a little taller and as thick as it can stand. From as near an estimate as I could make, if cut and cured, which could be easily done in the proper season, it would yield five tons of good hay per acre. There are thousands of acres of the sea marsh that could be most profitably used by those owning the prairie or higher land adjoining it. I am writing from personal observation having ridden over it on horseback in perfect safety. The only obstruction to guard against are muskrat holes, but for a pasture for at least six months in the year, without expenditure, it cannot be excelled. I see no reason to prevent them from using it longer, if they will build sheds to protect their cattle in midsummer. Some of the natives say that the mosquitoes would kill them in the spring season, but this I doubt, for there is always a strong Gulf breeze.

Deer are to be found here in great numbers, also wild cattle and hogs.

There is no danger from floods from the higher countries, for by inquiry from the oldest inhabitants, and these I could rely on for the most accurate information, there has been no overflow for twenty-three years, and then the water reached the depth of about 10 inches, by backing up from the Gulf of Mexico and meeting the floods from the higher lands, remaining but a short time and then flowing off rapidly. Even in cases of an overflow, there are spots elevated above the common level on which they can go for safety. During the winter season the marsh is covered with a heavy growth of the season previous, which makes very good hay, being perfectly clean, free from rust or mould, and we noticed our horses ate it whenever we gave them the opportunnity. But the cattle seemed to prefer the green spring growth which is just making its way through the root. It has a sweet with a very salty taste. I saw lots of cattle that were turned on the marsh in December when they were there and in bad condition. They are now looking fine and healthy, and nine-tenths of them seal fat.

This sea-marsh land is very cheap, and yet it is better pasture, in winter especially, than the prairie lands that command ten times the price. The cattle-dealers who own sea-marsh and the adjoining highlands and prairie, have a great advantage over those in the Middle and

Western States, for there is no need of fertilizer of any kind, no outlay for shelter, and very little need of fencing. If they fence at all, it is by sticking green willow poles. It seems to make little difference whether they be the main stock or branches. They immediately take root. On these they stretch the wire, with stakes driven down along the line to strengthen it. As the fencing is cheaply done, the older it gets the stronger it is. Those who use the sea-marsh as a cattle range drive them off in the latter part of August. At this season the heavy spring and summer growth has fully matured and begins to dry, when it is burned, to be out of the way of the coming crop. This grows rapidly and furnishes good pasture about the time the prairie shows the effect of midsummer, especially if the hot season be long and dry.

In the native cattle there can still be seen traces of the old Spanish breed, with enormously long and wide-spreading horns, narrow chests, high flanks, and deeply sunken backbones. All the characteristics requisite for good breeding animals are absent. The stock-raisers say that these cattle are so thoroughly acclimated that it is a rare thing to see disease or sickness of any kind among them, and requiring so little attention, they look upon them as the most profitable. Past experience teaches them it is a mistake to import old cattle in order to improve the breed, *for they invariably die off.* The few that live after the first year have made these efforts to improve stock expensive and unprofitable. Some are now adopting a new method, and I think, the right one, from what I saw. It is importing calves as soon as they are old enough to leave the cow Some attention must be paid to them for the first season. They will then thrive and do as well as the native cattle.

I had the pleasure of seeing the finest lot of registered Holstein calves that I have ever seen. The owner says they are doing well and looking better than the herd from which he bought them in New York. They are about ten months old, and are as large as any of the Alderney cows on the plantation. This herd is on Mr. J. Jefferson's plantation. He also has a herd of about forty registered Short horns, and some fine specimens of the Aberdeen Angus breed. He is very favorably impressed with the Holsteins and thinks they are *the* cattle for the country. His efforts will be of great value to the people in that locality.

The following list of fruits and vegetables is given in Dennett: Plums, figs, quince, pears, cherries, grapes, pawpaws, persimmons, pecans, hickory-nuts, walnuts, blackberries, dewberries, may-apples, mulberries, crab-apples, black and red haws, chincapins, strawberries and some other fruits; nuts and other fruits of little importance thrive and mature well in these parishes. In Saint Mary's and along the coast to the Mermentau, oranges are raised yearly in great abundance,* and the Mespilus or Japan plum, lemons, limes, bananas and pineapples may be produced in the open air as high up as Franklin by giving them a little extra attention in the winter.

Turnips, cabbage, melons, and all other garden vegetables grow as well in these parishes as they do north of the Ohio river.

The best winter gardens contain large white-head cabbage, rutabagas and flat turnips, onions, eschallots, garlic, mustard, roquette, radishes, cauliflowers, beets, cress, lettuce, parsley, leeks, English peas, celery, endive, etc. These thrive well in the garden all winter, except in very cold winters, where those farthest inland suffer a little from frost. But this occurs so seldom that they have less fear from the drouth injuring our crops than in the Middle States.

*We would caution the reader against regarding the area in question, as a reliable orange belt.

ST. MARTIN'S PARISH.

The extreme length of the parish of St. Martin's is 24 miles, and its width averages about 18. It contains about 400 square miles of rich prairie, swamps, lands heavily timbered, and tillable lands, covered with the finest body of timber in the State, suitable for sugar, wood, building purposes, cabinet, wagons, plows, and all kinds of woodenware. The parish is bounded on the north by St. Landry, by Lafayette on the west, Iberia on the south, and Iberville on the east.

THE TECHE LANDS.

The Bayou Teche enters St. Martin's at its junction with Bayou Fusilier at Amandaville, formerly called Leonville, and meandering through the parish, enters the parish of Iberia, six miles below the town of St. Martinville, near Lake Tasse, thirty-five miles from Amandaville.

The tillable land from St. Martinville, east of the Teche, is 18 miles in width, including all the land between this bayou and Catahoula lake. At Amandaville the tillable land on the east side of the bayou is three miles in width. The average width of the tillable land on the east side of this bayou, in its entire course through the parish, is over five miles, and its average width on the west side of the Teche is three miles. In places, in the great bends of the bayou, will be found some of the largest sugar plantations in the State. In our estimation, it is difficult to overrate either the beauty or the merits of this portion of Attakapas.

RICH SOIL.

The richness of the soil is proverbial, for it possesses all the qualities that are essential and desirable in any soil—drainage, ease of cultivation, its lasting fertility in the production of sugar, cotton, rice, corn, tobacco, indigo, or any other crop now grown or ever grown in the same latitude. Fruits, melons, potatoes, cabbages, turnips, and the whole list of field, garden, and orchard products can be realized. No portion of Louisiana can excel that of the valley of the Teche, in the parish of St. Martin's.

FORESTS.

From the open prairie, which runs parallel with and near the Teche, to the Atchafalaya, the eastern limits of St. Martin, it is almost an unbroken forest of the finest timber in Louisiana.

In the swamps of the Atchafalaya there are millions of cypress trees, tall, straight, and many of them from three to four feet in diameter. Between these swamps and the Teche prairie, on the tillable lands, there is an immense unbroken forest of oak, gum, hickory, black walnut, magnolia, live-oak, white, red, and other oaks, lime, pecan, sycamore, and other wild growths of less importance. On the west side of the Teche, in the rear of the open prairie, extending from Bayou Fusilier and the Upper Vermilion, down Bayou Tortue to Lake Tasse, there is a forest of swamps, cypress, and also of oak and gum, and other trees which grow on dry and tillable lands. Both banks of the Teche are skirted with fine forests.

THE VALE OF THE TECHE.

The lines of swelling forests in the rear take the place of hills, in helping to form the valley of the Teche. This bayou, in its course through St. Martin, is extremely beautiful, in many respects more beautiful than the Lower Teche, as it meanders through St. Mary. Its first banks, on both sides at St. Martinsville, are nearly twenty feet high. The banks of the bayou have a slope of less than thirty degrees to the water's edge. The banks give the bayou everywhere the appearance of a high canal. The water is not more than two and a half or three feet

deep in summer and autumn, and the surface is but fifty or sixty feet wide, but for about six months in the year it is navigable for small steamers. One lock at St. Martinsville would render the bayou navigable to the junction the year round.

THE FOREST OF THE TECHE.

The scenery all along on both banks of the Teche from St. Martinsville to the junction, a distance of thirty miles, is the most charming and magnificent we have ever seen in any part of the United States.

The forest trees on both banks, the magnolia, ash, live-oak, red, white and other oaks, black walnut, lime, gum, pecan, hickory, sycamore and other trees; all tall, graceful and of generous growth. On thousands of acres the grass grows on a smooth surface under the noble branches of the magnificent trees. These lands are far more beautiful than the famous woodland pastures of Kentucky; the trees have a more luxuriant growth, the foliage is richer and hangs out in the broad branches in a more generous abundance. And the soil is rich beyond anything we saw in the great West. It is the cleanest looking country I have ever seen. The beautiful smooth prairies look as though they had just been washed. The fat herds grazing upon these green expanses help in giving the finishing touch to this magnificent landscape scenery.

FRUITS.

Just here I will take occasion to say that peaches seem to thrive particularly well in this parish;* yield certain, prolific, and of the finest flavor, and grow very large and perfect in shape. They are finer, and do not rot so soon after being picked as those grown farther north. They command a high price in the New Orleans market.

POULTRY.

Large flocks of poultry are found on the prairie, for in this warm climate very little shelter is needed for them, and they find plenty of insects and grass-seed to keep them in good condition. They produce a bountiful supply of eggs, which are consequently very cheap. They sometimes sell as low as five cents per dozen, and never more than ten. Grown chickens sell from twenty to twenty-five cents apiece at the highest. They only eat them for a change of diet, for the very poorest class of people live on what we of Middle and Northern States term luxuries. All the bayous and lakes are full of the finest fish, such as trout, black bass, gar, sachylia, sunfish, gaspergoo, and numerous others which I do not call to mind just at this moment, and on these same waters, abound in great numbers, canvass-back, redhead, mallard, baldpate, blue and green wing teal and summer ducks. Wild geese are on the lakes and sea-marsh the entire winter. All this is perfectly free. There is no ducking clubs or fishing monopolies here. The best jack-snipe grounds in the world are found in the Teche country.† To give an idea of the quantity of snipe, I was one of a party of three that killed fifty-three birds on a piece of ground that measured as accurately as we could by stepping, that was a little less than an acre. Then we did not kill half that flew up. Snipe feed here by the thousand. They also have plover, rail, prairie chickens, and quail in great abundance. I have seen gunners a little farther north‡ tramping miles and miles to get a shot at birds found here feeding and jumping around seemingly in perfect security, for they are not molested here by the sportsmen. I allude to such birds as robins, doves, flickers, reed-birds, field-larks

*This will apply to all the parishes of southwest Louisiana.

†The country there is no better—hardly as good now—as nearer the Gulf, further west in the State—as in the southwest parts of Vermilion and Calcasieu parishes.

‡This refers to other States, North and East, and not to Louisiana.

particularly, as they are very shy in the North. They do not fly away, but walk, and will let a person get to within ten feet of them. There are also a great many deer in this country, which generally frequent the sea-marsh. Opossum, coon, rabbit, and red squirrel are very numerous, but are seldom or never hunted. There is game always in season. When it is out for one kind the other is coming, so that a sportman is always in his glory.

I think what I have said in reference to the boundless supplies within the reach of every individual living in this section of the country speaks volumes in praise of the working-class; for, notwithstanding fish and game can be had for nothing, and that meat is raised at a very trifling cost, good labor can be had for $1 per day.

LA FAYETTE PARISH.

La Fayette is the smallest of the Attakapas parishes. Its extreme length is about 19 miles, and its width about the same. Its northeast boundary made by the bayous Carancro and Tortue is irregular, the other three lines are nearly straight. This parish has an area of about 300 square miles, nearly all of which is prairie land and generally cultivated in corn, cotton, cane, and rice by the largest planters; while the other portions are cultivated in various crops, such as potatoes, cabbage, peas, and all sorts of garden truck.

SOIL.

The soil of La Fayette Parish is a light loam, and more sand is found mixed in it than any other. The average depth of the soil is about 12 inches. It rests on a clay subsoil, and is like the soil in all the parishes in fertility. They are all rich in plant food, and the fertile properties of the subsoil are developed by exposure to the sun and mixing with the surface soils. There are fields in La Fayette which have been in cultivation for eighty years, principally in corn and cotton, and are producing abundant crops to-day. The only help they have ever had by way of fertilizing or manuring has been occasionally plowing under a crop of cow-peas. They use two-horse plows in breaking up their land and cultivate their crops with one. The land is so easily cultivated, that they work their crops with great ease and rapidity.

The price of good farming lands to-day range from $8 to $30 an acre.

BEAU BASIN.

The road leading from Vermilion to Grand Couteau, runs through a beautiful agricultural region called Beau Basin. It is 12 miles from Vermilion to Carancro Crossing and about 4 from the road to the eastern boundary of Beau Basin, which is the boundary of the parish.

The lands near Vermilion* are nearly level, but extremely productive. A few miles north, between the road and the bayous, the surface becomes beautifully rolling. The gentle slopes and long tortuous ravines may be ranked with the most delightful landscape scenery in Attakapas. Here we find some of the most pleasant building sites in this enchanting country. The swells are like the heaving bosom of the ocean after a storm. Descending into the ravine, one feels as though he were in the trough of the sea, so to rise up again on the mountain wave and look out on the green ocean. The cottages of the farmers are neat and comfortable. The green pastures, fat cattle, and fine fields of cotton and corn in their proper season indicate a rich soil and a prosperous population. Shade trees and clumps of timber add greatly to the beauty of the scenery. The fields are generally inclosed with a nice fencing, and the lands are pretty well ditched. The country is airy, pleasant, and

*Now Lafayette.

healthy. Between Vermilion and New Iberia are situated Cote Gelée and Royville. The soil is rich, the country undulating, with deeper ravines and higher swells than we find in Bean Basin. The farmers are thrifty, but not as independent as they are in the north of Vermilionville. Plain dwelling houses and groves of China trees may be seen in all directions. The scenery in places is quite picturesque. This is an open and airy country, with pleasant locations for residences. Admirably drained, the soil rich, mixed with enough sand and vegetable loam to make it easy of cultivation. No portion of the South can be more healthful than this. The houses are very low and badly ventilated, the inhabitants paying but little attention to health, sometimes not even having windows. Still all the people appear to be perfectly healthy and have very little use for the doctor.

A great deal of land in the parish of La Fayette is now and has been changing hands. New enterprises and industries are gradually increasing.

VERMILION RIVER.

In mentioning this, I cannot do better than to copy from Darby in his geographical observations:

"The two vast prairies known by the names of the Opelousas and the Attakapas, extend themselves on each side of the Vermilion, through its whole traverse, from its entrance into Attakapas to its egress into the Gulf of Mexico, the distance of 100 miles.

"Wood is much more abundant on the Vermilion than along the west bank of the Teche, and though the soil may be inferior in fertility, it is nevertheless excellent; and the quantity greater on an equal extent of river.

"There are certainly eighty miles of the banks of the Vermilion which have an extension backwards two miles, affording 320 superficial miles, or 204,800 acres.

"Some of the most beautiful settlements yet made in Attakapas are upon this river. From the diversity in soil and elevation, there is no risk in giving the preference in beauty of appearance to the banks of the Vermilion over any other river in Louisiana south of Bayou Bœuf. If situations favorable to health, united with the most agreeable prospects, bounded but by the horizon, should be sought after; were taste to select sites for buildings, its research would here be requited, and be gratified by the breezes which come direct from the Gulf of Mexico. Fancy itself could not form a more delightful range than the Carancro and Côte Gelée settlements. On leaving the dead level of the Teche or the almost flat extension of the Opelousas prairie, the eye is perfectly enchanted. If a bold extent of view can give vigor to the imagination, if the increase of the power of intellect bear any proportion to the sweep of the eye, upon one of the eminences ought a seat of learning be established. There the youthful valetudinarian of the North would, in the warm, soft, and vivifying air of the South, find his health restored and his soul enlarged. Astonishing as it may sound to many, I do not hesitate to pronounce this, together with the range of hills from Opelousas, as the most healthy and agreeable, near the alluvial land of Louisiana."

There are numerous churches of all denominations, with schoolhouses at convenient distances, and well attended.

CROPS AND FRUITS.

Cotton, corn, sugar, rice, and all of the field and garden crops of the other Attakapas parishes, do well here. Common Irish and sweet potatoes, melons, peaches pumpkins, and field peas find a remarkably congenial soil. All the fruits of the other Attakapas parishes, except

oranges and the more delicate kinds, thrive finely in La Fayette. Formerly indigo was profitably cultivated here.

POULTRY.

This is one of the best parishes in the State for all kinds of domestic fowls. Some families make a business of it.

GENERAL FACTS.

The bayou or river Vermilion is navigable fifteen miles above the bridge on the New Iberia road and seventy-five miles below the bridge to Vermilion Bay. Large crops of sugar and cotton are raised in this parish.

The horses, hogs, cattle, and live stock generally are healthy in this section.

The only inconvenience or drawback of this section is the scarcity of fire-wood. The principal source is the trimmings of the catalpa and china trees.

The average yield of corn, where properly cultivated, is from fifty to sixty bushels an acre.

Sweet potatoes, from two to three hundred bushels per acre.

There are a great many Western mules and horses used in this section, but there is no reason why they should find it profitable to buy them, for the native mules and horses are very good workers. They can endure great hardships, and are raised at very little expense, good pasturage being abundant the entire year.

VERMILION PARISH.

GENERAL DESCRIPTION.

The parish of Vermilion contains about 1600 square miles of land and water within its limits. About 600 square miles of this is tillable woodland, prairie, and cypress swamps. About 500 square miles would include the prairie, and 100 square miles the timber land, the smaller part of which is cypress swamps. Lakes, bays, and sea-marsh cover about 1000 square miles of the surface of the parish.

About a quarter of the tillable land is on the east side of the Vermilion river or bayou, and three-quarters on the west side extending to Lake Arthur and the Mermenteau river. The timber land is principally on the Vermilion river, extending on both sides from the La Fayette side nearly to Vermilion Bay.

The timber is narrow above Abbeville, but it becomes broad below this village, extending out a mile and a half on each side in places. As it approaches the bay it becomes narrower. Below Abbeville there is a creek on the west side of the river lined with a heavy body of timber, and there is another on the east side. A line of forest trees extends across the New Iberia and Abbeville road beyond the head of the creek. There is a line of cypress timber, on land a little higher than the prairie, at the edge of the sea-marsh north of Marsh Lake, twelve miles long and three-quarters of a mile wide, and there are islands of timber in the edge of the sea-marsh east of Vermilion river. There is also timber on the south side of Bayou Queue Tortue and on the Pecan Island and Grand Chenière river.

SOIL AND SCENERY.

The soil of this parish is a dark vegetable mold, with a large proportion of sand, from eight to twelve inches deep. This rests on a subsoil of grayish clay.

The soil along the Vermilion river has a larger proportion of sand than that farther back; this gives the soil a lighter color. On account of the larger proportion of sand here than in the Teche lands, these

fields are more easily cultivated, and the roads need but little working—in most instances none at all—to keep them good the year round. The bottom of ponds and ditches are not boggy. One may pass over any of them on horseback without any inconvenience to the horse or rider. There are natural ponds in all these prairies, where the stock cattle are supplied with water. These ponds are from twenty to fifty yards in diameter.

Being forcibly struck with the convenience of those natural ponds, as they are called by the residents, I made inquiry as to whether they had been made for reservoirs for the purpose of holding the supply for the stock during the dry season. The only answer I received was, "they had no recollection of any of them being made by the hand of man." Prairie Gregg, which lies next to the sea-marsh southeast of Abbeville, is a beautiful sheet of land, level and rich, the soil darker than that east of Abbeville. The Gulf breezes sweep over it uninterrupted by forest trees. There are but a few of the old inhabitants here who cultivate their land to any extent, relying principally on fruits, poultry, and stock-raising, which yield them a revenue with which they seem to be perfectly satisfied.

THE PRAIRIE WEST OF THE VERMILION RIVER.

Viewed from an elevated position of the Queue Tortue, half way between the Vermilion and Lake Arthur, the scenery is the most perfect of its kind that fancy can describe. Facing the south, one may here turn to the right or to the left, and as far as the eye can reach there is one vast extent of natural meadow. Here and there may be seen a herd of cattle or horses, almost hidden in some places by the tall natural grass. The prairie east, west and south are dotted with little groves of trees, which shade the cottages of the resident population, who live principally by hunting, fishing and stock-raising.

FOREST TREES.

The dry land timber is oak, ash, magnolia, gum, hickory, elm, beech and hackberry. The usual dry-land timber, with the exception of chestnut, is present. The swamp growth is principally cypress.

CROPS.

The soil is good for sugar-cane, cotton, rice, potatoes, and all the products of the Attakapas parishes.

The yield of cotton is not as large per acre as in higher latitudes. The parish is peculiarly adapted to the cultivation of rice. It may become the leading rice parish in the State. Large yields of sugar have been grown in the parish; as large as 3000 pounds have been produced; from 800 to 1000 pounds of rice. The capacity of the soil is strong, but has been neglected on account of the great attention paid to stock-raising. Oxen are generally used in breaking up new ground, and creole or native horses in cultivating it.

Oxen are not put to work until the grass rises in March, since but a few of them are fed on hay or corn.

It is surprising to see so little attention paid to making hay, when it could be gathered in great abundance. Millions of tons are trampled under foot and go to waste, for the number of cattle that are raised in this section cannot consume the great quantity of grass in the growing season. Agriculture has received less attention here than in the other parishes.

Good well water can be had in this section at a depth varying from twenty to thirty feet.

A large quantity of poultry and eggs are shippd to the New Orleans market from this section.

The parish abounds with wild game, such as duck, geese, brent, quail, wild hogs, prairie hen, and deer.

Vermilion Bay abounds in fish and oysters. The fresh water lakes, ponds, and bayous have an abundance of fish.

ABBEVILLE.

The Vermilion river is navigable the entire length of this parish, and vessels ply between Abbeville and New Orleans, carrying the products of the surrounding parishes to the metropolis of the South.

Abbeville is beautifully situated, about thirty-five miles from the mouth of the river.

The population is slowly but steadily increasing.

SAINT MARY'S PARISH.

The parish of Saint Mary's has a front on four great bays, connected with the Gulf of Mexico, forty miles in extent. It has an average width of a little more than twelve miles. It is about fifty miles by the main road through the parish from its western line, near Jeannerette, to its eastern line, at the Bœuf crossing of the Morgan Railroad. Before the year 1868, the western line of St. Mary's extended to a point only one mile east of New Iberia, and Petite Anse Island was included in the limits of the parish. Its largest crops then were 50,000 hogsheads of sugar and 70,000 barrels of molasses. St. Mary's then contained 170 sugar plantations, lining the Teche on both sides, Bayou Cypremort, Bayou Salé, Atchafalaya, Berwick's Bay, the Bœuf, Bayou Schaffer, spread out on the Au Large prairie west and the Cypremort prairie south of Jeannerette, and on the three beautiful islands, Petite Anse, Grande Cote and Cote Blanche. Belle Isle in former days was cultivated as a sugar plantation by its proprietor, Dr. Walter Brashear. St. Mary's appears to splendid advantage from the pilot-house of a steamboat as she plows through these navigable bayous, lakes, and bays, and to poor advantage on the best map that can be drawn.

GENERAL ELEVATION.

The highest land in St. Mary's, excepting the islands of Cote Blanche and Belle Isle, is not over fifteen feet above the level of the Gulf of Mexico. The highest land around Berwick's Bay has an elevation of about ten feet, and from the bay to Pattersonville, and three or four miles up the mouth of the Teche, the elevation is but little above that around the bay and on the Bœuf. At Franklin, the west bank of the Bayou Teche is about thirteen feet above tide water, and the east bank is a little lower. Below Jeannerette, the elevation is fifteen feet. The two islands, Belle Isle and Cote Blanche, at their highest points rise more than 160 feet above the level of the Gulf. The sea-marsh is most of it under water during storms from the Gulf, sweeping towards the land at this point.

SOIL.

There is not an acre of poor land in the parish. Fields that have been cultivated in corn and sugar-cane for nearly a century, without manure, still produce good crops. The lands are easily and cheaply restored after long continued and severe cropping. The parish has land restoratives within its limits better than Peruvian guano, as we will show in an article under is proper heading.

AGRICULTURAL PRODUCTS.

Cotton is cultivated in Saint Mary's, but it is not considered a profitable crop. Sugar-cane is the true crop of the parish. Much of the land is adapted to rice. The sea-marsh, by local levees and draining-machines, makes rich rice lands. The soil consists principally of a

vegetable deposit of great depth. Swamp lands or any of the reclaimable wet lands are fine for rice; corn, sweet and Irish potatoes, pumpkins, peas, beans, indigo, ramie, arrowroot, ginger, castor-oil bean, tobacco, hay, cabbage, and turnips do well in this climate, though a part of this list has only been cultivated to a limited extent. Sea island cotton does well on the islands along the coast.

GARDENS.

Garden vegetables grow in this parish the year round. Nearly all kinds of vegetables grow the same here as in the North and West. The winter gardens contain onions, mustard, eschalots, leeks, garlic, beets, cabbage, carrots, turnips, cress, roquette, lettuce, raddish, cauliflower, celery, etc. Good gardens have an abundance of vegetables, fresh the year round. White-head cabbage and fine rutabaga and red-top turnips may be taken fresh from the garden in January and February, and also in the summer and fall.*

HEDGES.

The pyracanth makes the best hedge in this country. It is propagated from cuttings, is an evergreen, beautiful, compact, full of short thorns, grows thick and close to the ground, can be trained to any desired shape, and makes a good hedge in a few years. The cherokee rose is useless. The chicasaw rose makes a good hedge, but it makes a mountain of vines and foliage. The bois d'arc makes a good hedge, but it requires too much labor and is too much inclined to grow tall and form trees.

THE CHINA, CATALPA, AND BLACK LOCUST.

The china is a fine shade tree; bugs and worms will not live on or around it. It is propagated readily from seeds, makes good firewood even when green, makes good cabinet wood, grows rapidly, not easy to decay, and makes good fence-posts. The limbs cut from trees planted near houses in the prairies supply many families with wood. Its growth is rapid and it bears close trimming. Nearly the same facts hold good in regard to the catalpa and the black locust.

OVERFLOWS.

The west bank of the Teche, from a point five or six miles below Centreville to its source in Saint Landry, has not been overflowed since the memory of man; and it has no levees to protect it. This bank protects Bayou Salle, Cypremort and all of the country west of this bayou. The lands in the lower part of the parish and on the east side of the Teche here, overflowed in 1778, 1828 and 1867. When Grand Levee on the Mississippi stands firm, no part of Saint Mary's can suffer from overflow.

GENERAL ITEMS.

The fishes of the waters in and around Saint Mary's are redfish, black drum, trout, sheephead, flounder, mullet, croaker, cat, buffalo, perch, soft-shell turtle, gar and choupique.

White men stand field labor in St. Mary's as well as colored men, and have less sickness and mortality. Milch cows, when perfectly attended to, do well in this parish. No richer milk or finer butter is produced anywhere, than that formerly produced on Bayou Teche. Hogs, chickens and all kinds of poultry do well in this parish, excepting turkeys, which, from some unknown cause, do not thrive well.

Steamers may land at nearly all of the plantations of this parish. The parish is situated on the tide-water, and never suffers by freshets from heavy or long continued rains.

*The above facts as to vegetables will apply to most of Louisiana.

The crops of Saint Mary's are laid by, and field work stops, or may stop, by the 1st of July.

The Teche is considered the most beautiful bayou in the State.

SAINT LANDRY PARISH.

AREA AND PHYSICAL CHARACTER.

The parish of Saint Landry contains about 1,350,000 acres,* nearly equally divided between woodland and prairie. About three-quarters of the land is suitable for planting and grazing purposes. It is well watered by numerous bayous, running streams, and branches, nearly all clothed with a generous growth of timber, in many places a mile wide. Between the timbered streams, fine natural meadows spread out, clothed over nine months of the year with grass, that contains large herds of cattle and horses.

THE SOIL AND FACE OF THE COUNTRY.

In the upper part of the parish nearly all the streams, fed by springs, take their rise. Here the country is somewhat hilly, and is covered by a dense forest of pine, oak, ash, walnut, hickory and other valuable forest trees. Here also are found valuable mineral springs, which are much resorted by the invalids, and which possess great curative properties. Considerable deposits of limestone are here found, from which, for home consumption, is made excellent lime, and a very fine quarry of marble, which is susceptible of a beautiful polish and is valuable for being made into mantel-pieces, monuments, etc. The soil in the middle and lower portion is excellent, resting on a subsoil of fine brown or grayish clay, which, when plowed up, exposed to the weather, and mixed with surface soil, is as rich as the upper stratum. That subject to overflow, being rich alluvial, is inexhaustible and adapted to all the products of this lattitude. The soil of the prairie is generally mellow and easy of cultivation. Grass covers all portions of the parish, except the cultivated fields or surface covered by forests or water. More than half a million acres of grass in St. Landry is not under fence. The greater portion of the wealth of Saint Landry has been obtained from horses and cattle on the prairies, raised without hay or shelter. On these prairies a hundred thousand tons of hay might be made yearly for the New Orleans and other markets.

The following geographical description is found in a report made by Darbey in 1817, when the Sabine was the western boundary of the parish of Saint Landry, including a description of the Opelousas prairie:

PRAIRIE AND HERDS.

This vast expanse of natural meadow extends seventy-five miles southwest and northeast, and is twenty-five miles wide, containing more than 1,200,000 acres, inclusive of the numerous points of woods that form its margin on all sides. This prairie begins thirteen miles northwest of Opelousas and gradually opening to the southward, sends out various branches between the bayous.

Of the herds, as there seen on the prairie, the same author remarks: "Here you behold those vast herds of cattle which affords subsistence to the natives and the inhabitants of New Orleans. It is certainly one of the most agreeable views in nature, to behold from a point of elevation, thousands of cattle and horses of all sizes scattered over the intermediate mead in wild confusion. The mind feels a glow of corresponding innocent enjoyment with those useful and inoffensive animals grazing in a sea of plenty. If the active horsemen that guard us would keep

*The parish has since been impaired in area, by the formation of Acadia from it.

their distance, fancy would transport them backward into the pastoral ages. Allowing an animal to be produced for every five acres, more than two hundred and twenty thousand can be yearly reared and transported from this prairie alone, which, at an average of ten dollars a head, would amount to $2,200,000." At the time the above article was written, the year 1817, Mr. Darbey estimated the herds of the three greatest stock owners of the country, Mr. Wikoff, Mr. Fontenot, Mr. Andrus, at 20,000 head.

OVERFLOWS.

Portions of Saint Landry on the Atchafalaya and some of the bayous, are subject to overflow, when Grand Levee gives way, but most of the lands have never been under water since the parish has been inhabitated by white men, and never can be; and even the overflowed lands may be converted into rice plantations to some extent, or reclaimed when the levees of the Mississippi and Atchafalaya are made secure. Most of the lands subject to overflow are the richest in the world, and contain a heavy growth of cypress.

CROPS, FRUITS AND GARDENS.

The crops, fruits, and gardens of Saint Landry and of the other five parishes described in this circular, excepting cotton and oats, are less troubled by insects and vermin, and less liable to disease than they are in higher latitutes in other parts of the United States. The surface cultivated in Saint Landry yearly, amounts to about 100,000 acres. About one-third of this is planted in cotton. Not a tenth part of the tillable land is under cultivation. With a working population like that of the Western States, and the same kind of cultivation, that parish might send to market yearly 100,000 bales of cotton, 50,000 hogsheads of sugar, 75,000 barrels of molasses, and rice, tobacco, broom corn, basket willow, beeves, hay, horses, milch cows, sheep, hogs, hides, poultry, eggs, rosin, turpentine, and other valuable products to the amount of from $10,000,000 to $15,000,000. Such varied and valuable resources, in a climate so salubrious, can hardly be found anywhere else on the face of the earth.

TIMBERED BOTTOMS.

The timbered bottoms are rich and are excellent for sugar, rice, cotton, corn, sweet and Irish potatoes, peas, tobacco, melons, pumpkins, hay, garden fruits, etc. No richer land can be found anywhere. They are heavily timbered with the best of sugar wood, and the swamps contain an inexhaustible supply of the best of timber for building purposes and for hogsheads and barrels for the sugar planters.

BAYOUS, RIVERS AND STREAMS.

The Atchafalaya, on the east, connects this parish by steamboat navigation, with New Orleans.

The Bayou Courtableau, formed by the junction of the Crocodile and the Bœuf, affords good navigation to Washington the entire year, with slight and occasional interruption during the summer. The route is down the Courtableau to the Atchafalaya, thence up the latter to the Mississippi river, and thence to the city of New Orleans. The Bayou Bœuf is the channel of transportation for the planters, by means of barges, to Washington, and the Crocodile affords means of transportation to the lumbermen. The Plaquemine Brulée, the Mallet, the Cane, and the Nez Piqué are fine streams, but not navigable. The Mermentau, formed by the Nez Piqué and Plaquemine Brulée, is a fine, navigable stream. Vessels ascend it some seventy miles for lumber, which is taken to Texas, Havana, and the Mexican ports. Upon these streams are found large bodies of timber, suitable for all the purposes of build-

ing and fencing, and they afford an unfailing supply of water for stock. The parish has 230 miles of navigable water.

IBERIA PARISH.

GENERAL DESCRIPTION.

Iberia parish extends from Belle River, east of Grand Lake, to a line running from the west end of Lake Peigneur, to the mouth of Petite Anse Bayou. It is bounded on the north by Saint Martin's and on the south by Saint Mary's; east by Assumption, and west by Vermilion and Lafayette. Its length is about 45 miles. Its widest part is about 20 miles. Much of the eastern portion is water and cypress swamp. The tillable land along the west side of the Morgan Railroad and the Teche, from the parish line below Jeannerette to New Iberia, called the Au Large prairie, has a width of about 6 miles, and it is a little wider above, between the railroad and Lake Peigneur; the land from the line where the railroad enters the parish below Jeannerette to the line where it leaves it, west of Lake Tasse, is about 20 miles in extent. All the land is tillable between Lake Peigneur and Lake Tasse, and in the great bend of the Teche northeast of New Iberia. There is a sheet of tillable and fine grazing land south of Lake Peigneur. The Teche is lined with plantations nearly the entire distance from the entrance into the parish of Iberia, east of Lake Tasse, to the line where it leaves the parish, below Jeannerette.

The portion of the parish that borders on Grand Lake is a dense cypress swamp, and bordering on this swamp there is a growth of gum, ash, oak and other timber. The tillable land opposite and above Jeannerette is two or three miles in width. Around the great bend of the bayou above, called Fausse Pointe, the tillable land has a much greater width. *The lands in all parts of this parish are rich.* On the west side of the bayou there is a scarcity of woodland, and on the east side is an abundance of cypress and wood for sugar-making.

THE TECHE AND ITS SCENERY.

From the point where the Teche enters the parish of Iberia, about five miles below St. Martinville, by the windings of the bayou, to New Iberia, the distance is about 25 miles. This portion of the bayou is extremely beautiful. Its banks are generally 18 feet above tide-water, and they descend gently to the edge of the water an angle of less than 30 degrees.

THE AU LARGE PRAIRIE.

This is a stretch of land south and west of New Iberia, and a more beautiful prairie country is seldom or never seen, and is cultivated principally in sugar.

AROUND NEW IBERIA.

The more we circulate over this country of which New Iberia is the trading center, the more we are impressed with its beauty and its value for farming purposes. It is a lovely and wonderful country. The sea breezes roll over it and give health and long life to its inhabitants. Its climate is a medium between the tropical and the north temperate, combining most of the advantages of both, and the evils of neither. Steamers from New Orleans and vessels from the ocean penetrate its very center, and the cars of the Southern Pacific Railroad, connecting New Orleans and the Pacific coast, pass through it daily.

ORANGE ISLAND.

Orange Island, now the property of the great artist, Mr. Joseph Jefferson, was formerly called Miller's Island. It bounds Lake Peigneur on the south, and lies in a curve of the lake, which has the shape of a

new moon. The highest point of the island is 75 feet above the level of the lake, and 84 feet above the level of the Gulf of Mexico. It has hills, valleys, level and inclined planes, and from its bluff banks in places, the branches of the trees hang out over the waters of the lake.

Orange Island is in a line with Petite Anse, Grand Cote, and Cote Blanche Islands. Each is separated from the neighboring island by a distance of nearly six miles.

Orange Island rises above the level of the surrounding prairie and the lake, as the other islands rise above and overlook the surrounding sea marsh. But a short distance off flows the Petite Anse Bayou, draining the neighboring country, and emptying into the Gulf, ten miles below the island. The constant sea breeze renders the spot healthy and pleasant as a residence. There is on this island what is claimed, and I have no right to doubt, the oldest orange grove in this country. Many of those trees are very large, some of them a foot in diameter. Mr. Jefferson now has eight orange groves, and raises an immense crop of oranges every year. There are over one thousand young and bearing pecan trees. Also cherry, fig, peach, quince, mespilus, mandarins, lemons, and blue plums. The finest magnolias and live oaks in the world grow on this island. The magnolia grows to an enormous size. Mr. Jefferson has erected a palatial mansion on the elevation overlooking the lake, which, with its surroundings, makes it one of the most beautiful houses in the United States. Passing from his residence to his boat-house on the lake, you go through an avenue of stately live oaks, a magnolia and orange grove. Seen from the summit of the bluff, the lake spreads out almost beneath the feet of the observer, while the gleam of its silvery surface closes the vista of the principal avenues leading from the house. Mr. Jefferson has 9,000 acres; the soil is very rich, and most of it easy of cultivation, producing in one instance four hogsheads of sugar per acre. He now uses the entire property for cattle-grazing, and has probably 5,000 head. He has a number of fine blooded horses and a good collection of registered cattle. He is favorably impressed with the Holsteins; has watched some for five years to note the effects of the climate, and is very well pleased, and will go more extensively into the breed hereafter.

ACADIA PARISH.

This is a parish cut off from south St. Landry about two years ago. Nothing need be given in the way of description, additional to what has been said. Its parish site is Crowley, a new and very "live" town, and very well known North and West.

Rayne is a bright and beautiful town lately sprung into great activity through one and another influence. Acadia is full of the influences of the large capital, and vitalizing effects of the new spirit that has come so forcibly to southwest Louisiana within the last few years.

We now take up the "Alluvial Lands," still quoting from Col. Harris' hand-book:

ASCENSION, IBERVILLE, ST. JAMES, ST. JOHN, ST. CHARLES AND JEFFERSON PARISHES.

These parishes lie on both banks of the Mississippi river and extend from the city of New Orleans to the Baton Rouge parishes, having a double river front of about 125 miles. On the west bank of the river they are traversed by the New Orleans and Pacific Railroad, and on the east by the Mississippi Valley road. The soil of these parishes is

alluvial and the principal products sugar and rice. St. James is noted as the *Perique tobacco* parish, although this valuable product may be grown on any of the lands in this section. The principal towns in these parishes are Donaldsonville, Plaquemine, St. James, Edgard, Hahnville and Jefferson. There are many other villages, and public steamboat landings along the river, but steamboats generally deliver and receive freight direct at each plantation landing.

The climate on this coast is very fine, the weather during the greater part of the year is most delightful, and the healthfulness is conceded by all practicing physicians. The average duration of human life is as long here as anywhere else in the United States. The winters are like Indian summers, and spring generally opens in February with blossoms on the peach and plum trees and blackberry bushes. Roses bloom throughout the entire winter. The heat of summer is moderated by the refreshing breezes from the lakes and river, and the nights are generally pleasant.

The lands being alluvial, formed gradually from deposits left by the sediment brought down the Mississippi and other rivers, are the richest in the world. They are highest on the banks of streams, from which they slope off into the wooded lands in the rear, which are generally swamps. Hence the distinction between "front" and "back" lands. Here and there will be found a ridge or belt of high land, covered with a variety of magnificent trees and a thick undergrowth of canes and climing vines, and sometimes can be found an Indian mound, made of shells from the neighboring lakes. The front lands are mostly cleared and cultivated for two or three miles back. The cleared part of ridges is also cultivated. The principal forest growth is cypress, oak, ash, gum, maple, elm, hackberry, willow and cottonwood.

The price of land varies according to location and improvement.

The religion of the oldest settlers who speak French and of their descendants is Catholic.

There are public schools, besides private schools, in every village.

There are many beautiful and profitable orange orchards. Pecan trees furnish an abundance of delicious nuts, while Japan and other plums and figs grow in great luxuriance and abundance. Peaches, grapes, pears, bananas, persimmons, strawberries, blackberries, dewberries and mulberries all do well. Corn and potatoes grow abundantly. Of vegetables, the choicest in the land can be seen growing in summer and winter.

Horses, mules, cows, sheep, goats and hogs, thrive well. Sheep and hogs especially are easily kept, multiply rapidly and are profitable. Grazing facilities are great; as the winters are never very severe, grass does not entirely die out. Excellent hay can be made from the native grasses.

A better place for a vegetable garden and truck patch can hardly be imagined. Winter, summer, spring and fall gardens can be, and are, planted here, and there is no month nor week in the year when the gardener cannot be gathering his harvests. To give a list of all the vegetables that can be successfully and profitably raised here, would be to print the catalogue of the most complete garden seed establishment in the country. No hot-houses are required to produce many of our North summer's vegetables in the very middle of winter, and a ready market for all that can be raised is always near at hand.

This is the land of milk and honey. Flowers abound. Bees do splendidly and require but little care. In this semi-tropical clime they can gather their harvests from flowers all the year. No man is excusable in this region for not adorning his home with a robe of beauty. Almost every flower and shrub and flowering tree known to the zone,

from the lofty magnolia—which gives a charm to any scene where it grows—to the delicate violet, flourishes here. Many residences are literally embowered in blooming trees, shrubbery, vines and flowers. A hundred varieties of the rose can be raised to make the air fragrant, from January to June, and then again from June to January.

Perhaps there is not a spot in the world where the dairy business can be conducted with such profit as here. Cows do well and give a large quantity of milk all the year on the range alone.

There is no land in the world where poultry raising is so easy and profitable an occupation as in this section of the Mississippi valley. Turkeys, geese, ducks, chickens, Guinea fowls, pigeons, etc., here thrive and increase without expense to the owner; and besides supplying his table, enable him to dispose of a large number each year to market.

The lakes, bayous, ponds and rivers furnish a constant supply of different kinds of fish. The fields and woods afford fine sport to the huntsman. Hares, squirrels, raccoons and many varieties of birds are plentiful, while sometimes a deer or bear is met with.

The plantation drainage is effected by open ditches and canals running back from the river to lower land in the rear, or into some one of the numerous bayous, which form a network all over the alluvial region.

The decks of the passing steamboats afford a view of the growing crops of sugar cane and rice and the residences of the planters, surrounded by live oaks and orange trees, that is very attractive to the traveler.

In addition to the lands along the river, the bayou banks are cultivated to the depth of from one to two miles back.

In the rear of the arable lands are dense forests of cypress, oak, ash, gum and other valuable timbers.

The cypress is utilized by the planters to make coolers, hogsheads, barrels, cisterns, shingles and general lumber. Up to this time no other use is made of the remaining valuable forest growth, except burning it for fuel.

ASCENSION PARISH

is almost all alluvial; the portion fronting on the Mississippi river is identical in character with that of the "coast" of Iberville; the parish is adapted to sugar, rice and cotton, and the lands highly productive. The parish town, Donaldsonville, is a thriving village of about 2000 inhabitants, and at one time was inclined to dispute precedence with New Orleans and Baton Rouge.

By far the larger portion of this parish lies east of the Mississippi river.

The river front, from one to three miles back, is occupied by some of the finest sugar plantations in the State.

The land on this side of the river is generally alluvial, but on the northern boundry there is a strip of bluff land, three or four miles wide and about fifteen miles in length.

The New river, Amite and Manchac, are thickly settled with small farmers, who are industrious and thrifty.

IBERVILLE PARISH

lies between the Bayou Grosse Tete and the Mississippi river on the east, and the upper Grand river and its chain of lakes and bayous bordering the parish of St. Martin on the west. It is wholly alluvial; belts of cultivatable and highly productive lands lie along most of the bayous to the depth of one-half to two miles, especially in the northern portion, along Bayous Grosse Tete, Maringuin and Deglaize.

In the southern part of the parish, along lower Grand river and its tributaries, bayous Pigeon and Sorrel, the lands have been partially cleared, and are of fine quality, but the overflows prevent their occupation to a great extent. Bayou Plaquemine, connecting Grand river with the Mississippi, is a large navigable stream, and is thickly settled along both of its banks. The court-house town of Plaquemine has a flourishing business in the shipment of agricultural produce and (cypress) lumber.

The "coast" of Iberville is remarkable for the highly improved condition and great extent of its plantations, there being many handsome residences, surrounded by parks of live oak and pecan trees. Cleared lands lie also along Bayou Goula and Manufactory Bayou, extending back almost to Lake Natchez, by which they are thoroughly drained.

ST. JAMES PARISH,

north of the river, resembles more the river parishes further north than those of the Delta plain proper. The highlands near the river are highly productive and densely settled, and mostly occupied by sugar plantations. Northward of this belt the drainage is toward Lake Maurepas, through Bayou des Acadiens and Mississippi Bayou, which headed a few miles from the main river. The belt of marsh land fringing the shores of Lake Maurepas is only from three-quarters to one mile wide, and the land along the bayous south of the rivers; the cultivated border belt of the usual width of from two and a half to three miles is somewhat abruptly terminated by the marsh prairies that border the Lake des Allemands, which thence extend westward as a belt about six miles in width, a little beyond the principal meridian of the survey, about half way between the river and Bayou Lafourche.

ST. CHARLES PARISH

has many geographical advantages, and is partially bounded on different sides by three lakes of considerable size, namely: Pontchartrain, Des Allemands and Salvador, the last two being connected by Bayou Des Allemands. The distance by river from its court-house to the present upper limits of New Orleans is about twenty miles. The means of communication between the two points are many and comfortable.

There are several saw mills in the parish, from which large quantities of cypress lumber are furnished. The making of pickets, clapboards, shingles, hogsheads and barrels gives employment to many.

The facilities for the transportation of freight and passengers is good. Three railroads from New Orleans pass through the parish, namely: the Donaldsonville, the Morgan and Chicago railroads. The Mississippi river, the lakes, and Bayou Des Allemands, afford facilities for water crafts. The public road along the river puts the planter who is on horseback or in a buggy within easy access of the city of New Orleans.

At Bayou Des Allemands many men do handsomely by hunting, and in the winter months large number of wild ducks are shipped to New Orleans from this point. The gathering and curing of moss, the cutting and marketing of wood affords profitable employment. Soil in the vicinity of the river is well adapted to the manufacture of bricks and common pottery.

ST. JOHN PARISH,

reaching southward to Lake Des Allemands and its bordering marshes, while to the northward it embraces the neck of land that separates Lakes Pontchartrain and Maurepas, is, in most respects, similar to St. Charles. Between the main river and Lake Maurepas, it comprehends a fine expanse of agricultural land of great productiveness and in a high

state of cultivation. Fields of sugar cane and market gardens occupy most of the cultivatable lands in the parish. The region between the two lakes is partly cypress swamp, partly marsh prairie, rendered almost impenetrable by a thick undergrowth of saw palmetto. The prairie on the border of Lake Pontchartrain is partly of the "trembling" character, which is perceptible even to the passer-by on the great highway—the New Orleans and Chicago Railroad—that traverses it. A few cultivated spots and settlements exist in this region also.

JEFFERSON PARISH

stretches from Lake Pontchartrain on the north to the head of Barataria Bay on the gulf coast. Most of the tillable lands lie in the northern portion along the Mississippi river, just west of, as well as opposite to the city of New Orleans. The relatively high banks of the Mississippi, on which the towns of Algiers and Gretna are located, form a dividing ridge, from the south side of which the water drains southward through Bayou Barataria and its connections into Barataria Bay. On the higher land accompanying this bayou, as well as Bayou Dauphine or Des Familles, there are some fine sugar plantations, although the tillable lands are of little depth, and from about the junction of the two bayous, near the eastern end of Lake Washa, the marsh prairie closes in upon their banks.

In the southern portion, the surface of the parish is almost entirely covered by swamp, marsh prairie and sea marsh, traversed by an intricate network of bayous and dotted with lakes, resorts of fishermen and duck-hunters only. Numerous shell-heaps form the only elevations in the level plain.

Through Company Canal, light-draught steamers and other crafts can pass from the Mississippi, near Algiers, into Bayou Barataria, and Harvey's Canal establishes similar communication farther west. Barataria Bayou is navigable, and through its connections the waters of the Gulf are reached without difficulty.

The shore of Lake Pontchartrain, at the northern end of the parish, is bordered with four or five miles of marsh prairie, whose landward limit is marked by a belt of live oak, forming the background of the landscape as seen from the river. The lands intervening between the live oak belt and the river are thickly settled and highly productive.

ASSUMPTION, LAFOURCHE AND TERREBONNE PARISHES.

These parishes lie west of the Mississippi river. They extend from near Donaldsonville to the Gulf of Mexico. The Bayou Lafourche, which flows out of the Mississippi river at Donaldsonville, passes through the entire length of Assumption and Lafourche to the Gulf, about one hundred miles to the southeast.

To the south and west of these parishes is the parish of Terrebonne, extending along the Gulf of Mexico from Timbalier Bay on the east to Atchafalaya Bay on the west, a distance of over seventy miles. It has for its northern and eastern boundaries the parish of Lafourche and a portion of Assumption, while on the west it is bounded by the parish of St. Mary and the Atchafalaya Bay and river. The parish covers an area of about 1584 square miles, and was originally settled by Acadians about the year 1765. A large portion of the land lying along the gulf is sea marsh, and, therefore, not available for agricultural purposes unless properly drained. In the northern portion of the parish, however, will be found a very superior quality of alluvial soil, which is wonderful in its productive capacities, and is extensively cultivated. In this section, in the vicinity of the town of Houma, the surface of the earth is about eleven feet above tide water, and by means of numerous bayous is readily drained.

The arable land of these parishes is all alluvial. A part is sandy loam, another black stiff soil with no sand, and a combination of these two. The sandy soil is lighter and more easily worked; but the stiff land ripens cane earlier and is more adapted to rice culture. The mixed soil combines the good qualities of both.

The prevailing religion in this section is the Roman Catholic; but churches of all denominations, as well as public and private schools, are established in every village.

The people of this section are generally intelligent, educated and refined. All classes are kind and hospitable.

Bayou Lafourche is navigable for about seven months in the year for steamboats and all species of water craft. By it stone, coal, fire-brick, hoop-poles, sand, lime, lumber from the West, are landed in front of the various sugar plantations and towns; also rafts of saw logs are landed at the saw mills, floated from the swamps of upper Louisiana and Mississippi. By the stream, either on steamboats during high water, or by flat-boats in low water, a large amount of the sugar machinery, etc., necessary in the culture of sugar, and merchandise, is brought to the different landings, and the crops made are transported to market. From the seashore, by means of luggers, oysters, game, fish, melons, oranges, etc., are brought to the railroad stations for reshipment to the New Orleans market, or peddled along the bayou to the residents on either bank.

Bayou des Allemands is a beautiful stream, rising near Donaldsonville, and emptying into Lake Salvador, where it is lost in the numerous bays and outlets extending to the Gulf of Mexico. It is navigable for steamboats drawing four feet of water, and through it many of the products of Lafourche find an outlet to market. This bayou drains all that section of the country found between Bayou Lafourche and the Mississippi river as far down as the parish of St. Charles.

Bayou Blue flows from Thibodaux to the Gulf, and from Lake Fields down could be rendered navigable.

Bayous Chicbey, Choupic, Malogay and Grand Bayou, and various others, serve as drains to the country.

Lake Fields, in the rear of Lockport, and Lake Long in its rear, are beautiful bodies of water, noted for their excellent fish—such as cat, sac-a-lait, perch, buffalo, etc.

Lake Salvador is a magnificent body of water north of Lockport, and is the entrance to one of the most charming body of lakes that lead into the Gulf at Grand Pass, that can be found on the globe.

Lake Allemands is a large body of water between Lafourche and St. James. These lakes are supplied with fish and crabs at all seasons, and during the hunting seasons are favorite resting places for the immense flocks of poule-d'eau and ducks, that come down from the colder climes of the north.

Many of the inhabitants actually clothe and feed their families from the proceeds derived from the fowl yards, and in the spring, boxes of eggs constitute the principal down freights of steam packets.

The soil is admirably adapted to the production of field peas, potatoes (both sweet and Irish), pumpkins, melons and garden truck generally. Figs, plums, peaches and oranges are grown successfully in the different localities adapted to their nature.

The uncleared lands are densely covered with the best of timber, among which is found the different varieties of oak, ash, cypress, gum, magnolia, maple and wild pecan. The most valuable among these is the cypress, which is very durable and extensively used for building purposes, fences, shingles, staves and fuel. The number of ornamental trees and evergreens for the beautifying of yards and parks is very

large, among which the magnolia grandi-flora and the majestic live oak, richly deserve the encomiums which have been so profusely bestowed by visitants of our State.

There are large bodies of land in the interior densely covered with fine cypress, at this time a little inconvenient of access, but as the timber now near at hand is being rapidly consumed, these swamps in the near future must necessarily become very valuable. The timber business offers a large field for industry and enterprise, for lower Louisiana of necessity deals largely in building materials, pickets, barrel and hogshead staves and shingles.

A general prejudice prevails among strangers, and grave doubts as to the capacity of the white race to pursue agrienltural labor during the heat of summer. But small farmers have been accustomed to perform their daily round of labor as agriculturists without any detriment to their health. As a rule, the Creole population are early risers and get through a large portion of their work in the early part of the day, take a good rest at noon, and finish in the evening after the sun has lost some of its force. The health of the laboring white population will compare favorably with that of any other Southern State.

Strangers often express surprise that a flat country, in which the cypress trees abound, and in which most forest trees are draped with moss, should contain so many individuals who have reached the age of three-score and ten.

The nights are cool, and we are not subjected to the intense heat which, during the summer, often deprives the inhabitants of higher latitudes of refreshing slumber at night. Proximity to the Gulf coast exercises a delightful and grateful influence on the heat of summer.

Owing to the situation of lands on the Lafourche, and the length of time the country has been settled (upwards of a century), the inducements to emigrants for cheap lands are not so great as those found in some of the highland parishes, which possess larger areas of cultivable lands. These can be purchased at lower prices; but lands in this section are more fertile and more convenient to market, two advantages which should have great weight with settlers in a new country.

In the rear of the front owners small tracts of land can be purchased at reasonable prices, which possess a soil of equal fertility with the front tracts, and the additional advantage of having a fine range for stock of all kinds. These lands are admirably adapted to the wants of farmers on a small scale, and so great in their fertility that it requires but little work to secure all the necessaries of life, its comforts and many of its luxuries.

The facility for sending produce to New Orleans, the principal market, is equal to that of any other country, and the wants of the community are supplied directly from that great mart of commerce on the various shores situated on the banks of the Lafourche and the interior.

Steamers which carry the weight of a thousand hogsheads of sugar pass daily within hail, and at the same time offer pleasant accommodations for travelers who are not pressed for time.

Morgan's Louisiana and Texas Railroad gives quick and direct transportation to New Orleans.

The principal towns are Houma, Napoleonville and Thibodaux, but both banks of the Lafourche are dotted with pretty, thriving villages.

Both public and private schools are maintained in every village. There are separate schools for whites and negroes.

This section is well supplied with churches, and each denomination can attend its own place of worship without any inconvenience. Those who belong to the Roman Church are largely in the ascendant in point of numbers, and possess some fine houses of worship. Great

liberality in religious matters prevails, and the different sects cordially unite in the promotion of charitable objects.

There is a constant demand, at remunerative prices, for mechanical engineers, carpenters, smiths, and field hands. The amount of machinery in sugar-houses of an extensive character creates a great demand for the best talent in the repair and supply of engines, vacuum-pans, centrifugals and sugar mills. On the efficiency of the machinery necessary to take off a crop of sugar cane depends the success of a whole year's work, and must be done in proper time or the planter suffers great loss.

Several hundred people residing on the lower Lafourche and Terrebonne interior lakes earn a comfortable subsistence in transporting oysters, either to residents up the Lafourche or by way of the lakes and canals to New Orleans. In winter, others follow duck hunting, shooting these migratory birds for the New Orleans market and home consumption.

AVOYELLES, RAPIDES, NATCHITOCHES AND RED RIVER PARISHES.

These parishes extend, in the order named, from the mouth of the Red river, along its winding course, for about 300 miles to the northwest, where it enters Caddo parish.

The formation of Avoyelles is alluvial, except a small amount of prairie.

The soil of Rapides, Natchitoches and Red River is alluvial along the streams, but the geater portion of the land lies in longleaf pine hills and good uplands. Facility for reaching market is afforded by Red river and New Orleans and Pacific Railroad.

The principal towns are Marksville, Alexandria, Natchitoches and Coushatta. The arable alluvial lands of

AVOYELLES PARISH

lie along the numerous bayous with which it is cut up. These lands are unsurpassed by any in the Mississippi Valley, and have attracted farmers from other Southern States, who live by the sweat of ther brows, and are steadily growing rich in their new homes.

The Hon. H. Skipwith writes as follows of the prairie in this parish:

"Penetrating the parish from Simmsport to Moreauville, the entire route upon nearly the same level, a stranger who emerges from the swamp and sees for the first time the Marksville prairie towering fifty feet above him, presenting to his astonished vision the appearance of frowning battlements of some venerable fortress, at first view it seems as though an impassible barrier to his further progress has been conjured up by some wonderful upheaval of nature; but as he draws nearer and scans the marks of unquestionable antiquity, and winds his devious way until he finds a road almost as steep as the Tarpeian rock, awe and wonderment give place to curiosity.

"This prairie—eight miles from east to west, and eighteen miles from north to south—has upon it some venerable landmarks, and about 18,000 acres of very fair land, which, under a system of rather negligent tillage, has been steadily increasing in productive capacity, it being a common remark among the close observers in the parish that the prairie is now more fertile than when it was first settled, somewhere between 1768 and 1784, by a number of Acadian families, who fled from the floods which were spread over Pointe Coupee. It was also the site of the old post of Avoyelles, and it is still the home of the feeble remnant of the tribe of Tunicas, which was once strong enough to wage war with the Natchez and hold them in check. Along the eastern margin of this prairie, the

Red river once flowed, and upon its northeastern margin, almost within the corporate limits of Marksville, are still to be seen the well-defined lineaments of an earthwork, crescent in form, too laboriously constructed and too skillfully laid off to warrant the opinion that it was the work of any savage tribe.

"Just south of Choupique—a remarkable elevation of platean, five miles in length and three miles wide—is another of these astounding revelations to the traveler, rising suddenly out of the swamp seventy-five feet. The soil of this prairie is fertile, and almost as productive as the alluvions which environ it."

EAST CARROLL, MADISON, TENSAS, CONCORDIA, POINTE COUPEE AND WEST BATON ROUGE PARISHES.

These are all alluvial parishes and famous for their fertility. East Carroll, according to the United States Census of 1880, has a larger yield of cotton per acre than any other county in the Southern States. This parish is in the extreme northeast corner of the State, bounded north by the southern line of Arkansas on parallel 33° and east by the Mississippi river.

The other parishes lie due south of East Carroll, in the order named above, and extend along the west bank of the Mississippi river, a distance of more than two hundred and fifty miles.

The whole body of land contained in these parishes is probably unsurpassed for fertility by any in the world Prior to the war, when the levees were secure, arable lands were worth from $50 to $125 per acre. They can now be bought from $5 to $25 per acre.

This depreciation in value is due to the unstable condition of the levees.* All of these parishes have been devastated with periodical floods since the war, and although not overflowed every year, the back lands are considered unsafe for extended planting operations. The entire river front is cultivated in the staple crops of the State. West Baton Rouge and Pointe Coupee produce sugar as well as cotton, while the parishes northward grow cotton only as a money crop.

The highest land lies upon the bank of the river and the drainage is to the rear, the lands becoming lower until they reach the wooded swamp two or three miles back. These swamps are covered with a heavy growth of cypress, oak, ash and gum, and must soon again become valuable for their timber, which is available in the summer and fall, although covered with water in winter and spring.

The field for speculation in lumber is open to the capitalist familiar with the business. From June until December the swamps are sufficiently dry to admit hauling with the aid of ox teams and timber wheels. From February until May, when the crevasse water inundates the swamps, it is sufficiently deep to admit of floating the timber.† Portable saw mills might be constructed at convenient points. Lumber is in great demand, and none equals that made from cypress for building purposes. It is worth from $15 to $30 per 1000 feet, according to quality. Cypress staves for barrels and hogsheads, shingles and three-foot boards, *picux* or pickets are always in demand and command good prices. The quality and durability are superior to those made of any other kind of timber.

The planters of this section are generally educated and refined. They are hospitable and generous.

The negroes who vastly outnumber them are now a happy, docile and contented people. The "carpet bagger," whose political preferment

*This condition of affairs is now supposed to be permanently changed.

†The crevasse water may be considered a thing of the past. The levee system now gives the whole front of the Mississippi river in Louisiana protection.

was the fruit of the seeds of dissension, assiduously sown among the blacks, has long since departed.

The country sites of these parishes are Lake Providence, Richmond, St. Joseph, Vidalia, New Roads and Port Allen. There are hundreds of village landings along this long stretch of river, and steamboats, which are nearly always in sight, will land at any plantation.

This is, without doubt, the easiest country in which to live well. The earth, with only half cultivation, yields all field, garden and orchard products, all domestic animals increase and fatten on the wild growth of the forest and pasture, and game and fish can be taken when wanted.

Both Catholic and Protestant churches are in every parish, and separate public and private schools for whites and blacks. West Baton Rouge and Pointe Coupee are intersected by the New Orleans and Pacific Railroad, and Madison is crossed from east to west by the Vicksburg, Shreveport and Pacific Railroad.

In addition to the money crops of sugar and cotton, all of the field crops of the North grow to perfection.

Corn is raised by all planters and tenants. In new land it produces very large crops—75 bushels to the acre—the yield generally is from 20 to 40 bushels, according to the land, culture and season. Corn raised here is more wholesome than that brought from the Western States. Stock fed on it is rarely, if ever, made sick; whereas, Western corn often produces colic with mules and horses, resulting in loss. The seed is sown from the 28th of February to the 1st of May. But late corn planted in June and July often does as well; much depends upon the season. If the soil is kept loose and well pulverized at the roots, and thrown up in hills at the foot of the stock, it will never suffer from drouth and never fire.

Cow peas are planted in corn lands about the middle of May. The vines run over the ground and cover it by the month of August with a thick foliage, so dense, and runners so thick, that the rays of the sun never penetrate. In September and early in October these vines and leaves are cut or raked up, and after several days of exposure and drying are housed or stacked for hay. It makes a healthy feed for stock; they keep fat on it during the winter and relish it to the end. The culture of the pea has another advantage. It renews the ground and returns to it all the nutritious substance taken from it by the sugar cane, the cotton or corn stock. Hence, it is considered to be the best, cheapest and most reliable fertilizer.

The richest and most delicate nut in the world is the pecan. The tree reaches an enormous size, its trunk measuring fifteen feet in circumference, its height reaching one hundred and twenty-five feet, its shade at noon-day covering a circle of one hundred and fifteen feet in diameter. For grandeur and magnificence it is the peer among the many fine specimens of vegetation in Louisiana. It will bear the seventh year after its growth, very few nuts at first, but increasing annually. They were in great demand immediately after the war and sold for high prices. A planter in West Baton Rouge sold $500 worth of pecans in 1865, gathered from thirty odd trees. One tree bore five barrels, which sold for $35 per barrel. The same pecans last season brought from $12 to $15 per barrel.

Considering the little care that is taken of live stock, it is surprising that it should increase as it does. Few indeed have attempted to improve the breed. Cows and their calves, even in the winter time, are rarely fed. In the fall, generally not before December, cold weather does but little damage to vegetation. The usual length of winter is from December 1 to the 15th of February. During these months cattle require but very little feeding; they find sustenance on the fat accumu-

lated in the preceding autumn. If the planter resides in near proximity to a cane-brake, where switch cane grows wild, or where his stock may range in the open woods, then he may be certain that by the approach of spring they will return without losing a pound of flesh. These lands yield an average of 500 or 600 pounds of lint cotton or forty bushels of corn to the acre under proper cultivation. The owners are prosperous and the laborers contented. There has been little, or no political or social disturbance here. The races are on the best of terms; the relations of employer and employee are well defined and satisfactory. Altogether, the cultivated and the overflowed districts present about as vivid a contrast as can be formed with prosperity and desolation.

The proprietors plant in three different ways—the wage, the share, and the tenant plan. The wages for regular hired labor averages seventy-five cents per day, the laborer buying his own supplies. The share laborer receives land, dwelling, team, tools, seed, fire-wood, and every necessary to make a crop, and gives half of what he makes to the proprietor. The tenant rents land, furnishes his own team, etc., and pays the owner eighty pounds of lint cotton per acre as rent. These three plans, so different in detail, all come to about the same thing in the end, except in the cases of some exceptionally thrifty tenants. The day labor, counting in extra wages in chopping and picking time, makes about $250 per annum, and this is substantially what the share laborers and average tenant makes. There are instances where tenants, by intelligence, industry and economy have accumulated an independence and are well-to-do. White men can do this, but the average negro never thinks of to-morrow, and he is consequently a mere hand-to-mouth, though comfortable liver at all times. This is the fault of the individual, however, and not of the system. The system is liberal enough—far more than the system in any other agricultural country. It offers to honest industry and intelligent thrift, the finest promise that is offered anywhere in the civilized world to men without capital. The share laborer on the great cotton plantations can without any capital except that of his naked muscle, earn as good living and as large a pot for a rainy day as the farmer in England with $1000 in money to start with—yes larger.

The hackneyed old fable that white men cannot do field-work in the South ought to be exploded by this time, especially when statistics show that three-fifths of the cotton produced in the United States is produced by white labor.

Immigrants are wanted here, and they will receive a cordial welcome, whether capitalists or laborers. Small capitalists could make splendid investments at this time, and no man who desires to work at fair wages need be idle for one day. Parties who wish to work on shares are furnished with comfortable houses, team, tools, firewood and a garden spot, free of charge, and those who wish to lease are offered every facility, and advances are made to them on the most reasonable terms; in fact, a man can come here *without a dollar*, and lease land, purchasing mules and tools and get his supplies advanced him for the year on credit, and if he is any account can at least make his living and pay for his team and tools the first year, and after that his success depends upon himself, for it is assured, if he will do his duty. Fertilizers are used to a very limited extent, but experience has proven that when used, the results have been splendid, and pay a very handsome profit.

Before quoting from Hon. Wm. H. Harris' work on Louisiana as to the parishes of

PLAQUEMINES AND ST. BERNARD,

we wish to say a brief word by way of introduction. These parishes

are inhabitated by some of the most cultured and influential of our citizens. No other portion of our State can show lovelier homes, more sumptuous surroundings, more lavish, yet high-bred hospitality.

The area is *par excellence* the orange belt of the State, and, we think, of the United States, for nowhere are finer oranges raised.

The Shell Beach and Gulf Railroad is extending vegetable-raising greatly by reason of its facilities for shipping early vegetables; and the business of raising them and melons is expanding almost to the Gulf, on the river. This is going to be an industry of enormous proportions, and is growing with astounding rapidity. It is well worth a ride over the railroad, in early spring, to see the prodigious area planted, and their variety and quality.

On the right bank of the river, a railroad will soon be built to Grand Isle; and will open up the grand surf of that locality to the lovers of bathing.

Shooting and fishing are superb in both parishes. The oysters, crabs, shrimp, turtles, terrapins of the locality are unsurpassed.

We now quote from Col. Harris:

"These parishes lie east and southeast of New Orleans and are in the main sea marsh. The Mississippi runs through the entire length of Plaquemines, from New Orleans to the jetties.

Nearly all of the cultivatable portion of this parish lies along both banks of the Mississippi river, within sixty miles of its northern parochial boundaries, or above the Forts Jackson and St. Philip. The lands below the points designated, or along the last forty miles of the river and passes, being low, unproteeted by levees, and subject to frequent tidal overflow from the gulf, are unfit for cultivation without artificial drainage and levees.

The land is arable along the river above the forts named, at an average distance or "depth" from either bank of about one-half mile.

The population of this parish live and its productions are grown almost exclusively within this region of sixty square miles. A small proportion of its inhabitants live at the pilot villages and marine stations on Pass-a-l'Outre, Southwest and South passes, while a few of its people dwell upon the "chenieres" and ridges that rise above the sea marsh, or upon the low sand islands of the coast.

About four-fifths of the total area of the parish is swamp and sea marsh, a portion of which lands may be reclaimed at a remote date, but of which the greater part is covered with the "Marais Tremblante" or floating prairie.

There is comparatively little timber country in Plaquemines. That which remains is the live oak on the isolated chenieres, and cypress in deep swamps.

Sugar plantations, stocked in cane and drained by means of machinery, and bearing orange groves, command from $100 to $500 per square acre.

The rice lands are freely rented at prices ranging from $7 50 to $10 per square acre, or at the rate of a barrel and a half or two barrels of rough rice for every acre planted, payable after the crop has been harvested. These lands are generally already ditched, levied and prepared for irrigation. Lands suitable for cultivation in cane, corn or garden truck, thoroughly ditched and deeply drained by steam machinery,

command from $10 to $30 per acre, on annual leases. Probably longer leases could be obtained at lower figures. Various methods of share-working in the sugar field have been tried. That practiced to the largest extent is for the landlord to furnish the tenant with lodging, land, seed, teams and implements, in return for which the tenant is expected to deliver the cane produced to the landlord's mill or manufactory at $2 50 per ton. Where small farmers cultivated cane entirely at their own expense, they sell it at the large manufactories at $4 and $5 per ton.

The staple productions of this parish named in the order of their value, are sugar, rice, oranges, corn, and farm and garden vegetables.

Cultivation of the orange has been carried on here since the organization of the parochial government. In fact it is claimed that some of the trees in the lower part of the parish are over a hundred years old. In the central and southern portion of the parish, on the west bank of the river, orange culture has been almost uniformly a profitable business. The most favored location for the tree is on the right bank of the river, from a point forty-three miles below New Orleans to a short distance above Fort Jackson. On the thirty miles of coast designated there is almost a continuous grove of orange trees. The largest solid grove is fifty-seven miles below New Orleans. This is 100 acres in extent, and contains 10,000 trees. Another, forty-seven miles below the city, is composed of over 4000 trees. The most productive groves are situated in "Buras settlement," along several miles of the river bank immediately above Fort Jackson. The annual return from full grown orange groves in the favored locations mentioned is from $100 to $200 per acre. The hundred acre grove yielded fruit last season which sold for $12,000. Smaller groves have often returned more than $200 per acre.

Lands planted in bearing orange trees command almost fabulous prices. Some of them could not be purchased for $500 per square acre. A full bearing grove is not obtained till at least ten years after the seed is planted, unless grafted upon sour orange stocks, or from six, seven or eight years after the trees have been transplanted from the nursery: trees in the nursery are worth from ten to fifty cents each. During the first three or four years' growth of the young trees the groves may be planted in crops which are not exhausting, though this is considered a doubtful policy. After the trees commence bearing, little care is required to keep the groves in order, though a degree of intelligence and skill is required in caring for them, which few other fruit trees need.

The most prolific fruit in Plaquemines parish, after the orange, is the fig, almost every variety of which grows here in profusion. Excellent peaches are also raised.

The date, lemon, citron and bananas, are raised in the lower part of the parish. These tropical fruits are, however, very uncertain, and those raised are kept for home use by the producers

ST. BERNARD

begins at the lower limit of the parish of Orleans, on the left bank of the Mississippi river, and has a front of some fifteen miles on said river, extending to the upper line of the parish of Plaquemines; it then follows the Bayou Terre-aux-Bœufs in an easterly direction to the Gulf of Mexico, a distance of about 100 miles. It also includes Proctorville on Lake Borgne, and the ridge known as Lachinehe, lying on both sides of the La L'Outre, a small stream which flows into Lake Borgne.

According to the census of 1880, the population is about 6000, about one-half colored.

The general topograghy of these parishes is quite similar, and the description of one applies to the other.

The Mississippi River and Shell Beach Railroad, from New Orleans to Proctorville, affords ample transportation facilities, and opens to the public one of the most beautiful seabathing resorts in the South. It is a great boon to New Orleans. By means of this road, vegetables may be plaeed in the New Orleans market.

The soil of St. Bernard parish is as rich as any in the State, the area of arable land is about 25,000 square acres, and easily drained, being formed by ridges on both sides of the Terre-aux-Bœufs and La L'Outre Bayous, sloping gently towards the cypress swamp on either side. There are many small streams which flow into the numerous bays and lakes along the gulf coast, whieh serve as outlets to carry off surplus water.

Along the Mississippi river and small water courses, the surface is a rich, sandy soil; toward the eypress swamp the soil is rich, clay loam.

The erops at present raised are sugar eane, eorn, rice, oranges and some cotton, on the Bayou La L'Outre, especially the sea island, whieh grows luxuriantly and yields generally from one to one and a half bales. All kinds of vegetables are also raised in large quantities for the New Orleans market.

The largest portion of that part of the parish lying on the Terre-aux-Bœufs and La L'Outre is ent up into small farms, where vegetables are raised. There are twenty sugar plantations in the parish.

The Shell Beach Railroad runs southeast through the cane fields and orange groves to the salt surf resort on Lake Borgne.*"

MISCELLANEOUS.

There are a few parishes that, for one reason and another, we have not been able to put into any other eategory than that of miseellaneous. This is as fit a plaeing as eould be, as their lands are of several descriptions—"bluff," "good uplands," "alluvial," etc.

CALDWELL AND MOREHOUSE PARISHES.

These parishes are in Northeast Louisiana,† and lie along the banks of the Ouachita, from the northern line of Catahoula on the south, to the State of Arkansas on the north. Their topographical features are very similar, the general formation being alluvial along the streams, and all the elevated lands being classed as "good uplands," except the western third of Caldwell, which extends into the long leaf pine hills. Most of Western

CALDWELL

is a rough, broken, pine country, ent up by the several branches of Bayou Castor. On the dividing ridge, between Bayou Castor and Washita river, the eountry is broken and ridgy, especially near the Washita, running, in the main, parallel to that river, on which they oeeasionally form precipitous bluffs.‡ These ridges have a dark-colored, loamy soil, giving evidence of the presence of lime by the absence of the long-leaf pine, and the prevalence of the better class of upland oak, hickory, wild plum and red haw or thorn. The best of this kind of eountry is in the neighborhood of Grandview. Between Grandview and Columbia there is a prairie (Prairie Du Cote) about a mile in diameter,

*And now to Behemia, below Pointe-a-la-Hache, the parish seat.

†The peculiar conformation of Louisiana makes two sections of her area northeast.

‡A long, narrow ridge of the "good upland" runs entirely through the parish, from northwest to southeast, making a "divide" between the Washita river and the Bayou Castor.

almost round, and with a yellow loam soil. The soil is very fertile and is treeless, except a few hawthorn bushes. East of the Washita river is mainly the alluvial bottom, subject to overflow, except a long, narrow ridge of upland that runs down between Washita and Bœuf rivers, reaching nearly to their junction.

MOREHOUSE

includes more varieties of land than any other parish in the State. It has some cypress swamps, some lowlands or alluvial bottoms, pine lands, uplands and even prairie. The bottoms are the most abundant, and cover about two-thirds of the parish, the upland nearly one-third, while the prairies amount to only a few thousand acres.

The general topography of the country is a ridge, covered with pine, running down the centre of the parish from north to south, sloping towards lowlands on each side of it. On the west is the Bayou Bartholomew bottom; on the east the Bœuf river bottom, a large portion of which consists of cypress swamps, subject to overflow, and therefore very thinly settled and very little cultivated. The most prosperous section is along Bayou Bartholomew. The country is well settled here, open to trade, in easy communication with the markets, and not subject to overflow. Here are situated the larger plantations, as well as many small farms, cultivated by their owners, white men, and producing all that is needed in the way of supplies, such as pork, corn, etc,

Nearly all the lands in Morehouse are fertile, but there is great diversity in their productiveness. The best lands are those of the Bayou Bartholomew bottom. Those on Bœuf river are too low and swampy for cultivation, while the uplands, being largely pine and woods, are not as fertile or productive.

The uplands, however, are good second-rate land, and while they are not as prolific in cotton—producing only about half as much as the bottoms—they are fully as good for corn, and better for fruit, vines, etc.

Very little cotton is raised on them, except on new lands—corn, oats, etc., being the usual crops. The hill lands have one advantage, that of not sending forth as luxuriant a foliage as the bottoms, so that less labor is required to keep the crop in order. The common estimate is that a hand can cultivate fully fifty per cent. more of uplands than bottom lands. This fact makes the hill country a favorite section for raising corn and such crops.

A very small proportion of the parish is cultivated, not more than one-eighth, while one-third could easily be worked with scarcely any expense in the way of draining, levees, etc.

The best planting sections are the Bayou Bartholomew country, Oak Ridge, Gum Swamp and Prairie Mer Rouge, some of which regions boast of one and a quarter bales of cotton to the acre.

In these parishes some land is still held by both the Federal and State governments, mainly in the pine ridge section, where there are many excellent saw mill sites to be purchased. This land is high and healthy, well watered and adapted to nearly all kinds of crops, and exceedingly inviting to the newcomer. From private parties a great deal of good land can be purchased at the rate of $1 per acre.

The general price of lands, however, is as follows:

First-class open lands, with good improvements, houses, dwellings, etc., $20 to $30 per acre.

First-class wild land, $4 to $6.

Most of the land is leased by the year, when the prices are:

For improved lands, in small tracts, one-fourth the crop, or from $5 to $6 per acre.

For large plantations, with dwellings, gins, cabins, and all the necessities for the thorough cultivation of the soil, from $3 to $4 per acre.

There is plenty of labor, both for the saw mills, and the farms and plantations. Agricultural labor on the large plantations is mainly negro, while the small farms are cultivated mostly by their owners, white farmers. Wages are liberal, but the negroes generally prefer to cultivate on the share system, and a majority of them work on shares. The receipts of a laborer vary as he works well or as the season proves favorable, but the usual estimate is that an industrious hand can make from eight to ten bales of cotton and from 150 to 200 bushels of corn a year without difficulty.

The estimated yield of good land per acre is, for excellent alluvial land, one bale of cotton per acre, or thirty-five bushels of corn, or forty bushels of oats, and for the uplands, one-third to one-half bale.

There is very little stock-raising, although canebrakes afford an excellent range for cattle, while the hill lands are admirably adapted for sheep.

This section is well timbered with all the trees known in northern Louisiana and southern Arkansas, among which are pine, cypress, hickory, dogwood, various kinds of oaks, sassafras, sweet gum, osage, orange and black walnut. Lumber is abundant and cheap, pine selling at $10 per thousand feet, and cypress at from $12 50 to $15.

Peaches, apples, pears, and plums flourish here. The hill lands are much better for fruit raising than the rich bottoms.

They are admirably adapted for the cultivation of the grape, many indigenous varieties of which grow here luxuriantly in the forests. Among these may be mentioned the grape called the Battura, which was discovered here in abundance by the early French settlers. This grape is of dark blue hue, grows near the water's edge, and prospers when it has been covered by overflow, the grapes bursting forth as soon as the water goes down.

The larger streams are the Ouachita and Bœuf rivers and Bayou Bartholomew, all of which are large and navigable a greater portion of the year to steamers carrying 1500 or more bales of cotton.

There are hundreds of smaller streams, and a number of lakes of the best eating fish, the trout, bass, bank, and white perch, cat, and buffalo, and bar fish.

The climate is excellent, and not subject to extremes of heat or cold, summer or winter. Health good, especially in the uplands.

Schools and churches are maintained in every neighborhood, and more advanced institutions of learning are established in Bastrop and Columbia, the principal towns. Some of the most cultivated people of the South reside in these parishes, and there is no part of America where the immigrant would receive better treatment.

As the parishes of Calcasieu and Cameron are not included in the description heretofore given (as printed by the United States Agricultural Department), of the area catalogued as "prairies" by Professor Lockett; and as late Commissioner of Immigration, Hon. Wm. H. Harris, in the description of the "Prairie Parishes" in the book from which we have so profusely quoted, treats these parishes as a group and not separately; and as we have in our method, pursued a different plan from the latter, a departure from which might be criticised or misconstrued, we place these parishes in our "miscellaneous" list.

OF CALCASIEU

it is almost superfluous to say anything in the way of commendation. It is the focus of the immigration from the West; and more Western farmers have come into her borders within the last three years, than have come into all the rest of Louisiana besides. This parish has more than twice the area of any other parish. 3400 square miles. St. Landry comes next, with 2,276 square miles; and then Cameron with 1,545. But the new parish of Acadia takes away a considerable slice of territory from south St. Landry; and almost all of Cameron is in the "coast-marsh" area of Lockett's classification.

Calcasieu's area of prairie is now greater than that of any other parish; and, in her northern area there is a large belt of very fine pine. Within her borders are found five classes of territory: "Prairies, pine hills, pine flats, alluvial lands, and coast-marsh," not to emphasize "wooded swamps." The parish abounds in streams, and her "pine hills"—belt is fairly veined with them. Well towards her western border, the Calcasieu river flows; running from the country north of her upper boundaries into the Gulf of Mexico, and affording navigation, the year round, for vessels of considerable tonnage above Lake Charles. In its flow, this river makes several noble lakes, among which Lake Charles is the most notable. This charming lake, with the blue of its water, and the green of its fringing forests, looks like a large turquoise in a setting of emeralds. Its banks are bluffs, some of which are of shells. On this lake is the parish seat, Lake Charles, which town has grown as if touched by the wand of Midas. The lumbering business is immense—there being in the vicinity from six to ten mills manufacturing lumber and shingles. The rapid development in many lines, utterly forbids our attempting a description of the town. Of late the town has had two noble accessions to her improvements in educational institutions. Churches and schools are numerous. Her population must be nearly, or quite four thousand.

In Calcasieu parish many new towns have of late been laid out. Jennings is one of them, and is almost entirely populated by Western people. Welch, from a little village of scarcely fifty people, a year or two ago, is now a thriving one of several hundred. Within a year, there have been started in this parish six, or more new towns. Lake Arthur, one of the prettiest places anywhere, has come in for its share—two or three towns having been founded on its shores.

The streams and lakes of the parish teem with fine fish, and no parish offers greater attractions to the sportsmen. Near Lake Charles is the prodigious deposit of sulphur—said to be the largest known. There, petroleum, gypsum, limestone, alum, etc., are also found.

CAMERON.

This parish is almost totally in the "coast-marsh" area. On its northern border are some patches of prairie; but these are so inconsiderable as to hardly deserve mention.

Cameron has not yet had her day. She must await the future, and abide her time in patience. She will, doubtless, at some near day, be a busy place in canning fish, oysters and shrimp. Her parish seat, Leesburg, is right on the Gulf of Mexico, at the mouth of the Calcasieu river; and it must be that in the development that awaits that country, Cameron will be greatly benefited by a situation that now seems like isolation. If deep water ever comes to the mouth of the river, Leesburg will be a great place by reason of that alone. When the immigrant takes hold of the coast-marsh (as he will before the next quarter of a century), with its prodigeously fertile soil, then Cameron parish will come to the front. Great will be the crops of sugar-cane, rice, sea-island cotton, oranges,

vegetables. etc., while the Gulf will afford cheap and delicious food for the agriculturist, and an inexhaustible supply for manufacturing or preserving canned goods. So the sea and the land will both pour out their bounteous treasures to this, thus far, disregarded parish.

This "coast-marsh" country ought to have more said about it than has been. The entire front of Louisiana is on the Gulf of Mexico. Her south boundary is water, and her whole length, from east to west is gulf-coast. This is an incommensurable advantage, upon which space forbids comment. We append a brief description from Col. Harris' Handbook of Louisiana :

THE GULF COAST.

"The Coast line of Louisiana extends from Texas on the west at the mouth of the Sabine river, to Mississippi on the east at the mouth of Pearl river.

Lockett says :

It may be divided into two distinct sections, differing from each other in many characteristic respects.

The first or eastern division lies between Cat Island. near the mouth of Pearl river and Atchafalaya bayou, the southwest. These two points are the most easterly and most westerly limits respectively of the great delta of the Mississippi. The waters of the Mississippi formerly found their way through Manchac bayou, Lake Maurepas, Lake Pontchartrain and the Rigolets into Lake Borgne. and thence into Mississippi Sound,at the entrance of which is Cat Island. These waters still flow into Atchafalaya Bay through the river of the same name. All this part of the coast is extremely irregular, indented with numerous bays, cut up by thousands of lakes and bayous into a labyrinth of peninsulas and islands which it is almost impossible to represent, on a map of the scale I have adopted. The general shape of this part of the coast is the arc of a circle, convex outwards. The radius of the circle is about sixty five geographical miles, and its centre is a few miles to the westward of the southwest corner of Lake Pontchartrain. This circle crosses the narrow neck of land which makes the lower delta, near Forts Jackson and St. Philip. The whole length of the arc, excluding the lower delta, is one hundred and seventy miles. There is a remarkable tendency of the islands along this circle to form themselves into groups, convex towards the Gulf, and each island partakes of the same shape.

Among the thousand islands along this coast, is the paradise of the sportsman.

Fish and water-fowl abound in countless thousands.

The professional hunters and fishermen have built their villages upon these islands, and live well with little exertion. Their families are reared without the aid of physicians and other adjuncts of civilization. Here are found the famous Bayou Cook and Bayou Chalon oysters—sea turtle and crabs. The water is thick with shoals of shrimp.

The fame of these lovely islands shaded with live oak, orange and banana, with its inlets overflowing with the luscious denizens of the sea, has long since gone out to the fartherest ends of the earth."

The coast front extends through five degrees of longitude in an air line over three hundred miles; thus giving Louisiana imperishable advantages.

We have thus treated the parishes separately, so as to gratify the love of special mention so natural to every locality; and we have given, as far as possible, the views of others instead of ourselves, so as to avoid the imputation of bias for or against any parish. We have been actu-

ated in this line of conduct, by a most studied and calculating motive to please all who are appreciative of legitimate endeavors to perform the arduous and delicate duties in the premises. We are, therefore, not chargeable with either the understatements or overstatements of the descriptions of these parishes. We have sought subject-matter that would naturally be supposed fair, well-informed, impartial. Certainly, much of it is above all criticism. Northwest Louisiana has had her own say about herself, in the pamphlet from which we have first quoted, issued under the auspices of a Northwest Louisiana land association. The pamphlet quoted, issued by the United States Agricultural Department, may certainly be supposed impartial, and is certainly a glowing tribute to the area in question. While the descriptions of Col. Wm. H. Harris' work on Louisiana are not so elaborate or balanced as those of the other books quoted, they are very cordial, succinct and graphic, and, in many instances, are from the pens of citizens of the parishes described, and so far are thus protected from any suspicions of derelictness, misdescription, or want of information on *his* part.

So that, on the whole, we think we have great reason to congratulate ourselves that we have had such wide and many-sided sources of information from which to collate our descriptions of the parishes.

A few of the parishes have issued a pamphlet, each, descriptive of the merits of their respective areas. At first, we felt inclined to quote from these, as to each parish, but soon had to discard that idea, because of the difficulty of selecting what to print and what to suppress. And, we could never have given satisfaction in any case, because of the unreasonableness of the various criticisms we should have evoked. Then, in some instances, these pamphlets are, each, nearly or quite half as large as this book, which covers the whole State. So, even a moderate quotation from a few of them would have consumed all the space of our own pamphlet. In this aspect of the case, we had only one safe thing to do, which was to avoid quoting from any pamphlet devoted solely to a single parish, but to give it the benefit of a mention here, so that enquirers might obtain it. And this plan is incomparably more advantageous to such parishes as have issued pamphlets, since it puts before enquirers *all* they have to say in furtherance of their claims, whereas, we could, at best, have only given very meagre space to a quotation of them.

Besides, in various circular-letters, heretofore issued to the parishes, we tried to incite them to organize in behalf of immigration, and to publish *propaganda* in that regard, by informing them that we should issue a pamphlet soon, and that, in it, we would call attention to any organizations that should exist, and any publications that might be issued. We here and now fulfill that promise. There is an organization, with

headquarters at Shreveport, Louisiana, that has issued a "Pamphlet Descriptive of the Parishes in Northwest Louisiana," an organization in Union parish, headquarters Farmersville, which has issued a pamphlet; Bienville parish has issued a pamphlet, and the headquarters there are Arcadia; Franklin parish has an organization, and has issued a pamphlet, headquarters at Winnsborough; Ruston, Lincoln parish, has an organization; Morehouse parish has issued a pamphlet, headquarters, Bastrop; Ascension parish, headquarters, Donaldsonville, has issued a pamphlet under the auspices of the Ascension parish branch of the Sugar Planters' Association; Tangipahoa parish has issued a pamphlet, headquarters, Amite; the Illinois Central Railroad Company has issued a pamphlet, applications for which should be made to Mr. J. F. Merry, General Western Passenger Agent, Manchester, Iowa; lastly, an organization of great prominence and influence, known as the State Immigration Association of Louisiana, has its headquarters in New Orleans, with Hon. John Dymond as president.

We have reserved Orleans parish for separate comment, and have taken it out of the category of "Alluvial Lands," because of its superior claims to more elaborate notice as being particularly the seat of New Orleans, the leading city of the State, and the metropolis of the Southwest. The limitations of our space, we regret to say, compel us to abridge greatly the portrayal of this great city, and we must generalize much in doing so. In this line of treatment we shall have recourse to the labors of others who have taken a broad view of most material facts germane to the material aspects of the city.

The following remarks upon New Orleans are extracts from an address of Judge Chas. E. Fenner, at the opening of the Cotton Palace, in February, 1889, in that city:

"When we survey the great natural advantages of the State of Louisiana and of the city of Orleans, it seems difficult to explain how they have been distanced in the race of progress by many of their sister States and cities which have had much greater difficulties to encounter and obtacles to overcome. It cannot be denied that her temperate climate, her fertile soil, the great variety of her productions, the accessibility to market of all portions of her territory, and her general salubrity, reduce to a minimum the struggle of existence in Louisiana, and place within the reach of her inhabitants, a greater proportion of the comforts of life, at a less cost of labor, than can be obtained in almost any other part of the world.

As for the city of New Orleans, the slightest study of the map of the Western Hemisphere inevitably fixes upon her as the site of a great metropolis. This was visible to Bienville when he transported the colony which his brother, Iberville, had founded on the salubrious shores of Lake Pontchartrain, to the half-reclaimed swamps on the bank of the Mississippi, and, with prophetic vision, fixed here the seat of a commercial empire. It was equally visible to Thomas Jefferson, when he seized upon the complications of European politics, to acquire for his country, the priceless treasure of the Louisiana territory.

Situated at the southern gateway to the ocean of that vast and incomparable region known as the Mississippi Valley, the natural key to the navigation of that great system of waterways which penetrate the richest regions of the globe, and, converging in the central artery of the Mississippi river, find their way to the ocean on its mighty current; planted almost on the dividing line between two continents, naturally tributary to each other, and finding here their inevitable centre of exchanges; the existence of New Orleans as a commercial metropolis is not an accident, but a necessity, and he is blind who cannot foresee the magnificent future which lies before her. The possible New Orleans rises before the mind's eye as one of the most entrancing visions that can bewitch the imagination. Nature has done for her all that is necessary."

From "The New South" of Col. M. B. Hillyard, in his article "Louisiana," we quote from pp. 312-313, the following elaborate pen picture of New Orleans and its possibilities:

"No other city on this continent is so unique in its aspects as this, the chief city of Louisiana. Its quaint hurly-burly, its gay and giddy people, its love of pageantry, its surprising abandon, its fondness for parades, its union of bustle and idleness, the coarse savagery, squalor, ignorance, of part of its population, and the gentle refinement, high culture and effervescent brightness of manner of another; the stench of its gutters, and the floral glories of its gardens and parks; its grotesque and chaotic architecture; its markets, and their noisy and nondescript vendors; the diverse dialects of its inhabitants; the eloquence of its clergy; the desecration of the Sabbath in games, entertainments, picnics, theatres and conduct of business; its extravagance in dress and the gayety of it; its consummate beggars; its fine wines and cigars; its world-known carnival, and the matchless participation in its spirit; the knightly valor of its gentlemen, their hospitality and unspeakable charm of manner; the glorious beauty, elegance, sparkle of its ladies—these, and far more that defy enumeration, give New Orleans aspects kaleidoscopic and *bizarre*.

The business possibilities of this most advantageously located city are almost beyond computation. "New Orleans enjoys advantages which are peculiar, and which must make her a great emporium of trade and commerce. These are the facilities for transportation of heavy freight by river; her system of railroads, her safe and deep water port, her geographical proximity to Mexico, Central and South America. She is the natural outlet for the products and manufactures of the Mississippi basin and of the Western States. She should also be the distributing point for the imports from neighboring countries. The Panama Canal, when completed, will cause an enormous increase in her traffic. She is but five days from Colon, the mouth of the canal; one day's crossing will bring her to Panama. This means communication in six days with the western coast of Central and South America, and an absorption of all the heavy freight from our California coast, and the supply of the wants of the people on the western coast of Central America under such favorable conditions as to defy competition. More intimate connections with Mexico will stimulate traffic between the two countries, a large portion of which must necessarily fall into the lap of New Orleans."

New Orleans ought to be the great centre of sugar refining. Her proximity to Cuba and her position as the emporium of the home supply; her river for distribution, along with her railroads, show this. The unnatural competition of German beet-sugar cannot continue. She ought to manufacture flour from Southern raised wheat, and distribute it to South and Central America, West Indies and Mexico. Many considerations urge her elegibility as a great cotton manufacturing city.

Years hence Southern raised wool will come here in great quantity, and woolen factories ought to spring up. Silk factories we ought to confidently expect, too. Her proximity to Texas and South America for hides, points to her as a most proper place for manufacturing boots and shoes, harness, trunks and other articles into which leather largely enters. Here ought to be canned extensively oysters, shrimp, fish, terrapins, wild duck, figs, oranges, pineapples, many vegetables, etc.

Iron ship building, and wooden, too, for that matter, ought to here find one of its most eligible localities. Proximity to coal and iron; competing railroads from the fields of these minerals, with down grades; a river entering, so to speak, distant fields to cheapen these products; the cheapest and best timber in the world—Southern white oak and yellow pine—near; deep water and plenty room for launching—all these and more, show the inducements to this industry.

No place seems so fit for the seat of an immense industry in the manufacturing of furniture, whether one regards her proximity to the fine woods of the tropics, or her contiguity to the abundant—almost untouched,—woods of the South. This city could hardly have a rival in the country, in the manufacture of either cheap or most elegant furniture. Comparative non-competition, largeness of territory for consumption, cheapness and facility of distribution, are all additional and most important factors.

New Orleans ought to be a prodigious producer of woodenware. This needs no further word. Rags are exported hence to New York. This is suggestive enough of paper manufacture.

New Orleans ought to export the bulk of the tobacco raised in Kentucky and Tennessee. This product would thus bring more money to its producers.

A large increase of capital, available for current uses, is badly needed in New Orleans. This city is now too dependent upon New York.

Most Western importations ought to come via New Orleans; and the South will find her one of the most eligible ports for the exportation of her future home-made flour, cotton goods, canned meats and vegetables, boots, shoes, harness, farming utensils, machinery, etc. Coal and lumber, too, ought to find large exportation from this port. There must be a great future in these. Certainly, New Orleans ought to be the great entrepot for the teas and silks of China and Japan, and for the coffee and spices of the tropics. The completion of either the great canal across the Isthmus or the Eads' Ship Railway, will open a path which New Orleans ought to enter.

"The South is the coming country." New Orleans is the gateway to the world to and from the South and West."

New Orleans is well advanced in manufactures. She is getting strong in breweries, sugar refineries, foundries, shoe manufactories, coopers ages, box factories, soap factories, candy manufactories, cigar and tobacco factories, ready-made clothing, boots and shoes, sash, blind and door factories, lumber factories (saw mills), brick yards, potteries, rice mills, book-binderies, wagons, carriages, moss ginneries. She is making some furniture, harness, saddles, brooms, corks, tanning some leather. Her oil mills, rice mills, book-binderies, fertilizer factories, canning factories, are strong factors in her industries, as are cotton factories, in which she has of late made notable progress. She possesses the finest porcelain factory in America; its wares being equal to those of Sevres. She makes fine ropes and cotton yarns, cordage, etc. There are two tile factories. But it is impossible to enumerate all her industries.

She has about the deepest water in the United States clear to the salt water, and will in all likelihood have the United States Navy Yard here,

and probably iron ship-building establishments. She has very creditable shipyards now. We may certainly look to immense business in building cars, locomotives and engines here (as is done in the last instance largely now) some day. And agricultural implements ought to be a prominent manufacturing interest.

New Orleans is well supplied with railroads already, and has lately been opened up to Denver, Colorado. Two lines more at least are making this way, one from Dallas, Texas; and another the Fort Scott, Natchez and Gulf. Those already here are the Louisville and Nashville, along the coast of the Mississippi Sound, passing through Mobile, Montgomery, Birmingham, Nashville, Louisville, etc.; The Illinois Central Railroad, passing through Jackson and Canton, Mississippi, Memphis, Tennessee, Cairo, Illinois, and on to Chicago and St. Louis, Missouri; The Mississippi Valley Railroad, through Baton Rouge, Vicksburg, Memphis, Tennessee, Paducah, Kentucky, to Richmond and Fortress Monroe, Virginia; The Queen and Crescent Route, through Meridian, Mississippi, Birmingham, Alabama, Chattanooga, Tennessee, to Cincinnati, Ohio; The Southern Pacific Railroad, through southwest Louisiana, through Houston, Dallas, Fort Worth, San Antonio, El Paso, to San Francisco; The Texas and Pacific, via Baton Rouge, Alexandria, Shreveport, Marshall, Longview, Terrell, Dallas, Fort Worth, El Paso. The last two afford outlets to Denver, Colorado, by the Denver, Texas and Fort Worth Railroad, finished last summer to Fort Worth from Denver. Of course we cannot undertake to enumerate the connections made with subordinate railroads by the trunk lines we have mentioned. It would take a volume to do it. Suffice it to say that New Orleans is pretty thoroughly connected with the whole railroad system of the United States.

By her river she can have navigation such as no other city can boast, as the following shows:

NAVIGATION OF THE MISSISSIPPI.

The total navigation of the Mississippi itself is 2161 miles, but small steamers can ascend 760 miles further.

The following are its principle navigable tributaries with the miles open to navigation:

	Miles.		Miles.
Minnesota	295	Wisconsin	160
Chippewa	90	Rock	64
Iowa	80	Illinois	350
Missouri	3,174	Yellowstone	474
Big Horn	50	Ohio	1,021
Allegheny	325	Monongahela	110
Muskingum	94	Kanawha	94
Kentucky	105	Green	200
Wabash	365	Cumberland	609
Tennessee	270	Clinch	60
Osage	302	St. Francis	180
White	779	Black	147
Little White	48	Arkansas	884
Big Hatchie	75	Issaquena	161
Sunflower	271	Yazoo	228
Tallahatchie	175	Big Black	35
Red	986	Cane	54
Cypress	44	Ouachita	384
Black	61	Boeuf	55
Bartholomew	100	Tensas	112
Macon	60	Teche	91
Atchafalaya	218	D'Arbonne	50
Lafourche	168		

The other ten navigable tributaries have less than fifty miles each of navigation.

The Mississippi and its tributaries may be estimated to possess 16,571 miles, navigable to steamboats, and 20,221 miles, navigable to barges.

As to the lines of steamers and sailing vessels at this port, our space utterly forbids an enumeration of them; but with vessels to foreign ports, coastwise and rivers, our tonnage is very large.

Capital invested in manufacturing in this city is exempted from taxation for ten years.

The population of New Orleans is estimated to be 254,000; 184,500 white, 69,500 colored.

NAVIGABLE STREAMS.

The following is a list of the navigable waters in the State:

Streams.	Miles of Navigation.	Head of Navigation.
Amite River	61	Port Vincent.
Atchafalaya River	218	Red River.
Barataria Bayou	78	Harvey's Canal.
*Bartholomew Bayou	40	Baxter, Ark.
Bisténeau Lake	30	Minden.
Black River	126	Mouth of Ouachita.
Bodeau Lake	10	Bellevue,
Bœuf River	55	Rayville.
Bœuf Bayou	11	
Calcasieu River	132	
Cane River	60	Grand Ecore.
*Cross Lake	25	Jefferson, Texas.
Courtablean Bayou	36	Washington.
D'Arbonne Bayou	50	Farmerville.
DeGlaise Bayou	29	Evergreen.
Delarge Bayou	20	
Dorchite Bayou	6	Minden.
Forks of Calcasieu	32	
Grand Caillou Bayou	13	
Lafourche Bayou	318	Donaldsonville.
Lacombe Bayou	15	Bayou Lacombe,
Little River	12	Trinity.
Louis Bayou	15	Bayou Castor.
Maçon Bayou	138	Floyd.
Manchac Bayou	18	Hope Villa.
Mermenteau Bayou	81	Lake Arthur.
*Mississippi River	585	St. Paul, Minn.
Nathalbany River	12	Springfield.
*Ouachita River	217	Camden, Ark.
*Pearl River	103	Carthage, Miss.
Petite Anse Bayou	8	Salt Mine.
*Red River	510	Shreveport, State Shoals,
Rouge Bayou	15	Texas.
Sabine River	387	
Teche Bayou	91	St. Martinsville.
Tensas River	112	Lake Providence.
Tickfaw River	16	
Terrebonne Bayou	27	
Tangipahoa River	15	
Tchefuncta Bayou	20	Old Landing.
Vermilion Bayou	49	Pin Hook Ridge.
Other streams	155	
Total	3,771	

*Portion of navigable stream lying in other States.

MILES OF NAVIGATION IN EACH STATE OF MISSISSIPPI VALLEY.

	Miles.		Miles.
Louisiana	3,771	Minnesota	720
Arkansas	2,100	Wisconsin	660
Mississippi	1,380	Ohio	560
Montana	1,310	Texas	550
Dakota	1,280	Nebraska	440
Illinois	1,270	West Virginia	500
Tennessee	1,260	Pennsylvania	380
Kentucky	1,027	Kansas	240
Indiana	1,230	Alabama	200
Iowa	840	New York	70
Indian Territory	830		

The State contains about (26,000,000) twenty-six million acres of land, and (1,250,000) one and a quarter million acres of inland water surface.

TOPOGRAPHICAL FEATURES.

The land is nearly equally divided into hilly and level lands.
The lands of the State may be approximately divided as follows:
Good upland (5,250,000) five and a quarter million acres.
Pine hills (5,500,000) five and a half million acres.
Bluff lands (1,500,000) one and a half million acres.
Prairie (2,500,000) two and a half million acres.
Arable alluvial (2,750,000) two and three-quarter million acres.
Pine flats (1,500,000) one and a half million acres.
Coast marsh (3,500,000) three and a half million acres.

MINERALS.

Louisiana marble and kainite beds, situated in Winn parish, and the kaolin beds in Catahoula, are the most notable discoveries made in northwest Louisiana. The marble underlays 1000 acres, and is said by those who claim to know, to be the largest marble formation in the world. All colors are found. The banded, variagated, and yellow lime onyx are unique. The stone has been assayed both here and at Washington, D. C. The crystal is very fine and stone compact. It contains no iron, silica or sulphur. It is absolutely free from all extraneous matter. The kainite beds of Winn parish are situated four miles south of Winnfield. They are said to contain potash, soda, lime, salt and aluminum in combination. It is claimed to be a good fertilizer when combined with the lime burned from the marble, and can be put on the market for less than half the price of commercial fertilizer. If this information is correct it is a mine of wealth.

GOVERNMENT AND STATE LANDS.

We pass now to the topic of lands in Louisiana belonging to the United States and to the State.

The following letter, kindly furnished, at my request, by Hon. J. Massie Martin, United States Receiver, will give some light as to the quantity of lands subject to homestead entry belonging to the United States and situated in the State of Louisiana:

UNITED STATES LAND OFFICE,
New Orleans, La., January 12, 1889.

Hon. T. W. Poole, Commissioner Bureau of Immigration, No. 5 Carondelet street, New Orleans, La.:

DEAR SIR—Your favor of the 11th inst., received. The number of acres subject to homestead entry, belonging to the United States and located in this State is, in rough numbers, about 2,000,000 acres.

The bulk of these lands are pine lands, the prairie lands of the State having been the first to be entered by settlers. Respectfully,

J. MASSIE MARTIN, Receiver.

There are two Registers of the United States Land Office in this State. One in the city of New Orleans, the other in the town of Natchitoches. The following letter explains itself:

UNITED STATES LAND OFFICE,
Natchitoches, La., January 18, 1889.

Hon. T. W. Poole, New Orleans, La.:

DEAR SIR—In compliance with your request, I have made a hurried estimate of the vacant public domain, by parishes in this district, with the following result:

Vernon	67,000	Natchitoches	58,020
Sabine	38,060	Bienville	18,000
Rapides	25,000	Bossier	15,000
Red River	3,500	Caddo	12,500
Claiborne	8,500	Webster	7,500
Grant	4,500	Winn	15,000

These are proximate figures, the time allowed not being sufficient to make an accurate statement. Respectfully,

WILLIS HOLMES, Register.

This would leave in round numbers about 1,700,000 acres unaccounted for in the rough computation. We venture to throw a little more light on this subject, by stating that there is government (United States) land subject to homestead entry in the parishes of northern Catahoula, in various parts of Jackson, Caldwell, Ouachita, and some in Morehouse and Union. That is all the information we venture on the topic, and that we give with great hesitation, and only in deference to what seems a common expectation on the part of the public that, the Commissioner of Immigration should know all about the matter, and that it is his duty to impart it. We beg the public to understand that it is not the province of the Commissioner of Immigration to communicate information on the topics or subjects of lands subject to homestead entry, belonging to the United States, or of lands belonging to the State of Louisiana subject to homestead entry or sale. Information as to United States lands is properly obtainable at the office of the land registers at New Orleans, and Natchitoches, Louisiana; as to State lands, of the register of the State land office, at Baton Rouge, La. We convey this information to prevent disappointment and delay to enquirers, and to protect the Commissioner of Immigration against unreasoning, unkind, or ignorant, but innocent, criticism. It would be an act of almost physical impossibility to give accurate information as to where and how much land is subject to sale and entry in the State. Thousands in that category to-day might be sold or entered to-morrow; and to keep up a daily communication with these land offices (two in remote parts of the State), would be simply impossible. What we have said as to United States lands is, therefore, only approximate, and is only a courtesy, we should be glad to make more serviceable, if we could. But to give minute data as to quantities and localities of government lands would involve months of research and is entirely outside the province of this office.

The public lands of the United States are now withdrawn from sale, and are only subject to homesteads.

40	acres	can	be	entered	at a cost	total fees and expenses of about		$18 00
80	"	"	"	"	"	"	"	22 00
120	"	"	"	"	"	"	"	25 00
160	"	"	"	"	"	"	"	30 00

Also Louisiana has several million acres of State lands. These lands are subject to entry as homesteads, by actual settlers, free of cost, except the nominal cost of notice of application, etc., to the amount of 160 acres. The lands are also subject to purchase in any quantity at prices ranging from 12½c to 75 per acre.

RIGHTS, PRIVILEGES AND EXEMPTIONS OF TENANTS, LABORERS AND WORKINGMEN.

HOMESTEADS AND EXEMPTIONS—CONSTITUTION OF 1879.

ARTICLE 219. There shall be exempt from seizure and sale by any process whatever, except as herein provided, the homesteads bona fide owned by the debtor and occupied by him, consisting of lands, buildings and appurtenances, whether rural or urban, of every head of a family, or person having a mother or father, a person or persons, dependent upon him or her for support; also one work horse, one wagon or cart, one yoke of oxen, two cows and calves, twenty-five head of hogs, or one thousand pounds of bacon, or its equivalent in pork, whether these exempted objects be attached to a homestead, or not, and on a farm the necessary quantity of corn and fodder for the current year, and the necessary farming implements to the value of two thousand dollars.

EXEMPTION IN FAVOR OF LESSEE, OR TENANT.

CIVIL CODE, ARTICLE 2705. The lessee shall be entitled to retain out of property subjected by law to the lessor's privilege, his clothes and linen, and those of his wife and family, his bed, bedding and bedstead, those of his wife and family; his arms, military accoutrements, and the tools and instruments necessary for the exercise of his trade or profession by which he gains a living, and that of his family.

EXEMPTIONS FROM SEIZURE FOR DEBT—ACTS 1876, NO. 79.

SECTION 1. The sheriff or constable cannot seize the linen and clothes belonging to the debtor, or his wife, nor his bed, bedding, or bedstead, nor those of his family, nor his arms and military accoutrements, nor the tools, instruments and books, and sewing machines necessary for the exercise of his or her calling, trade or profession by which he or she makes a living, nor shall he in any case seize money due for the salary of an officer, nor laborers' wages, nor the cooking stove, nor utensils of the said stove, nor the plates, dishes, knives and forks, and spoons, nor the dining table and dining chairs, nor wash-tubs, nor smoothing irons and ironing furnaces, nor family portraits belonging to the debtor, nor the musical instruments played on, or practiced on by any member of the family.

VARIOUS PRIVILEGES OF LABORERS—ACTS 1886, NO. 89.

SECTION 1. The laborer shall have the first privilege on crops.

CIVIL CODE, ARTICLE 3217. The workman or artisan shall have a

privilege for the price of his labor on the movable property, which he has repaired or made, if the thing continues in his possession.

CIVIL CODE, ARTICLE 3249. Architects, undertakers, bricklayers, painters, master builders, contractors, sub-contractors, journeymen, laborers, cartmen and other workmen employed in constructing, rebuilding, or repairing houses, buildings, or making other works, shall have a lien and privilege upon the building, improvements, or other work erected, and upon the lot of ground not exceeding one acre, upon which the building, improvement or other work shall be erected; provided such lot of ground belongs to the person having such building, improvement, or other work erected.

ACTS, 1880, No. 130, SECTION 1. Laborers and workingmen on buildings, streets, railroads, canals, ditches, and other similar works, when their services are engaged by the proprietor, or any agent of the proprietor, upon any of the works enumerated, shall have a first privilege upon the buildings or other works upon which their labor has been bestowed.

SECTION 2. That when such works are done by any contractor, or sub-contractor for a stipulated price, it shall not be lawful for any portions of such contract price to be paid or advanced to the contractor, or sub-contractor, until payment has been made, or security given, for all sums due to laborers or workmen under such contractors, or sub-contractors, up to the date of such payment, nor shall any payments or advances be made to any such contractor or sub-contractor, except in proportion to work actually done, and in such manner as to leave unpaid at all times, until the completion of the work, a sum sufficient to secure the bills for labor or work.

STATE LANDS.

SECTION 10, Act No. 75, approved April 7, 1888, provides that the public lands, donated by Congress to the State of Louisiana, shall be subject to entry and sale, at the rate of seventy-five cents per acre, for any number of acres; and any person making affidavit that he or she enters for his or her own use; and for the purpose of actual settlement and cultivation, and together with the said entry, he or she has not acquired from the State of Louisiana, under the provisions of this or any act graduating State lands, more than one hundred and sixty acres, according to the established surveys, shall be allowed to enter one hundred and sixty acres at the rate of twelve and one-half cents per acre.

STATE OFFICERS.

FRANCIS TILLOU NICHOLLS, Governor.
JAMES JEFFRIES, Lieutenant-Governor.
LEONARD F. MASON, Secretary of State.
WALTER H. ROGERS, Attorney General.
OLLIE BRICE STEELE, Auditor of Public Accounts.
WILLIAM H. PIPES, State Treasurer.
W. H. JACK, Superintendent of Public Education.